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ABSTRACT

This book is an outcome of a conference held in Malta September 19-23, 1996 on the theme, "Apprenticeship and VET (Vocational Education and Training)--Changing Policy and Practice in a Unifying Europe." The book considers the reemergence of the concept and practice of apprenticeship in education and training in many of the countries of Europe. The following papers make up the nine chapters of the book: "Education, Work, and Vocationalism: A Historical and Comparative Review of the Major Issues (1970-1985)" (Ronald G. Sultana); "Apprenticeship in England: An Historical Perspective" (Richard Aldrich); "The Apprenticeship Conundrum in Norwegian Vocational Education" (Liv Mjelde); "Apprenticeship in Finland: Is There Such a Thing?" (Anja Heikkinen, Leena Kuusisto, Maija Vesala); "VET in Germany between Traditional Structures and Modern Demands" (Rudolf Husemann); "The Pathway Approach to VET: The Case of Switzerland" (Philipp Gonon); "'But What I Want Most Is a Job': From School to Unemployment and Back Again" (Tove Lien); "Core Skills, General Education, and Unification in Post-16 Education in the United Kingdom" (Andy Green); and "How To Study Apprenticeship Comparatively?" (Anja Heikkinen). A list of contributors and their affiliations is included. (KC)

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B 16

ANJA HEIKKINEN &
RONALD G. SULTANA (EDS)

VOCATIONAL EDUCATION AND APPRENTICESHIPS IN EUROPE

– CHALLENGES FOR PRACTICE AND RESEARCH

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INTRODUCTION

Anja Heikkinen and Ronald G. Sultana

This book is an outcome of activities of a network of researchers working under the title 'Vocational Education and Culture - European Perspectives'. A group of researchers from Finland, Germany, Malta, Norway, Switzerland, and the United Kingdom have, for the past few years, aimed at promoting the development of a European research community in order to generate a knowledge-base as well as theories on vocational education. The network represents Europe in many ways: there are big, middle size and small countries, Nordic, central and Southern countries, and diversities in traditions of vocational education.

The network brings together distinguished scholars and younger researchers, with experience in historical, sociological, philosophical and comparative research in education. All network members are active in developing academic curricula in the field of vocational education and training, participating in national and EU projects and discussions that have as a goal the development of vocational education and training, as well as of vocational teacher and trainer training. There have been meetings, conferences and common publications on topics like vocational education and state formation, paradigms of vocational education, vocational education in people's life-histories, and theory and practice in vocational education. The challenge of developing a common theme and a comparative approach has been on the agenda during all meetings.

By means of the present book, the network expresses some of its research and practical interests, in the hope of promoting cultural, historical and critical discussion on changes in vocational education in a historical conjuncture

marked by increasing European integration and globalisation of economies. A fundamental premise of this and other publications of the network's research members is that there is little awareness - not only among policy makers and practitioners, but also among educationalists and academic communities - of some of the most basic characteristics of vocational education and training. Important questions therefore remain unaddressed: what have the pedagogical principles and aims of vocational education been in different countries and how are they related to national policy-making, production, economy and education? What is behind such differences, and what can we learn from them? The development of a European research community, capable of generating the knowledge required, cannot come about without the invention of new ways of collaboration, new research methods and project designs at European level, away from monological and nationally restricted comparisons towards reflective dialogues on cultural characteristics of vocational education, taking into account the differences in academic traditions. The Network, together with its meetings, research agendas, and publications, hopes to facilitate the process of such collaborative and productive ventures.

This publication is an outcome of the conference held in Malta between 19-23 September 1996, with the theme 'Apprenticeship and VET - changing policy and practice in a unifying Europe'. The editors wish to thank the University of Malta and the Employment and Training Corporation (Malta) for sponsoring the network meeting, and the Department of Education of the University of Tampere for accepting to publish the proceedings of the conference in its book series. Acknowledgements are also due to all those who, in one way or another, helped in preparing the book for publication, particularly the authors of this volume.

* * * * * * * *

Apprenticeship has come into fashion in European vocational education policy. The old concept with its varying connotations and prestige, has experienced a remarkable rehabilitation, symbolising emerging new conceptions and interpretations of the functions of vocational education and training and on the relations between education and work in European countries.

This book considers the re-emergence of the concept and practice of 'apprenticeship' in education and training by addressing a number of themes. It starts by positioning the issue of apprenticeship into a more general context of theoretical discussion on vocational education. It then explores the historical and cultural specificity of apprenticeship in various European countries, giving due importance to the contemporary political and practical issues and challenges that mark the vocational education field. The book concludes by discussing methodological problems in the attempt to develop comparative research on apprenticeship as a form of vocational education in Europe.

The book starts with an introductory article by **Ronald Sultana**, who presents a historical and comparative review of primarily sociological literature on education, work and vocationalism during the period 1970-1985. The analysis concentrates on the English-speaking world, but because developments in that context have tended to dominate the academic scene, it also connects with what in fact happened in most other countries. Sultana distinguishes three discourses emerging in the beginning crisis of 'functional relations' between education, economy and work or employment since the turn of the 1970s. The 'new vocationalists' attempted to export the structural problems of capitalism onto people, particularly by promoting educational practices, structures and developing curricula, that purported to directly respond to the needs of industry and the problems of unemployment. 'Critical educators' opposed the

programme of vocationalists and demanded curricula which would empower people to struggle for more democratic and equitable social arrangements. 'Rhetorical humanists', on the other hand, tried to develop an educational alternative for the vocationalists by appealing to personal fulfilment and freedom, which would not rely on people´s economic activity.

The next article by **Richard Aldrich** provides an historical perspective of apprenticeship in England. He traces the multiplicity of meanings that apprenticeship has actually had in history, like: claiming to be a prestigious way of gaining master qualifications in some key production; being a form of social policy in the context of the exploitation of minors through child labour; and simultaneously offering a cheap way of organising popular education and an option for social ascendance through the pupil-teacher system. Aldrich goes on to analyse the character of the modern apprenticeship, which - although exploiting the traditional connotations of the term - actually developed in relation to the national vocational qualification system. Although the idea of apprenticeship may represent truly long-term aspects of human life and learning, its forms and functions should be considered in the context of contemporary industry, social life and educational system as a whole.

The article by **Liv Mjelde** discusses the apprenticeship conundrum in Norwegian vocational education. She shows the dramatic change in the educational policy from prioritising school-based vocational education developing new curricula based strongly on work-based learning. Although this may rightly respond to the expectations of many students - especially those with less 'academic' interests - there are some potential deficiencies in the system: it is strongly based on public subsidies to the enterprises, there is no guarantee of the quality of training placements and there is still little concern about critical

reflection of work-experience as part of the curricula. The article by **Anja Heikkinen, Leena Kuusisto and Maija Vesala** questions whether there actually is such a thing like apprenticeship in Finland. They show how various work-based or work-related forms of learning in fact have belonged to the Finnish school-based system, even though they have not been counted as apprenticeships. The reforms from the 1980s therefore need to be addressed critically, particularly since they have isolated schools and teachers and weakened their autonomy. The authors of this paper are cautious about too rapidly forgetting the educational achievements gained by - or the social and cultural reasons behind - this exceptionally 'education-led' system.

The chapter by **Rudolf Husemann** describes the contemporary challenges facing vocational education in Germany, as it attempts to respond to modern demands through traditional structures. Despite the prevailing importance of the most paradigmatic apprenticeship-type of vocational education in Europe, the 'dual system' is also characterised by tension. Husemann describes, on one hand, the competition at the heart of the 'dual system', based as this is on previous school-based education and achievement. On the other hand, he shows how the demands and expectations of promoting small and medium- sized enterprises requires new combinations of general and job-specific education, particularly the rotation of trainees from big industry to small enterprises. On his part, **Philipp Gonon** gives an account of the 'pathway approach' to VET in Switzerland. Although apprenticeship-type training has maintained its dominant position as an educational alternative, the remoteness of reforms in vocational and general education tracks means that neither of them develops in a way which addresses the needs and aspirations of many young people today.

Tove Lien describes Norwegian experiences in employment training in her chapter ''But what I want most is a job': from school to unemployment and back again'. She shows how even the most intensive vocational adult education programmes cannot substitute the learning and qualifying processes in 'real work life'. Even in employment training, the beneficiaries are the ones with higher level of previous education and work-experience, thus paradoxically these systems seem to strengthen exclusion. A possible conclusion from Tove Lien's paper could be that a strength of apprenticeship-type of vocational education could lie in its potential of offering crucial 'real work life' experiences to students. **Andy Green** provides a critical analysis of the latest reforms in post-16 education in the U.K. from the perspective of core skills, general education and unification. The failure of raising the standards in general subjects despite the introduction of 'core skills' into vocational curricula is related to the characteristics of the U.K. reform policy, as well as to continuing historical divisions between the academic and vocational. The response to youth unemployment and growing participation in post-compulsory education has led to the decline of the apprenticeship-training - which, to some extent, was related to a cultural tradition and knowledge-base - and creating a culture- and theory-free, competence-based educational alternative for those who were failing to achieve general education through the traditional A-levels route. According to Andy Green, the way ahead is not reducing the full-time, school-based studies, but strengthening the role of institutional education.

The closing article of the book 'How to study apprenticeship comparatively?' by **Anja Heikkinen** discusses the problems of comparative research in the field of vocational education. The author warns that straight-forward comparisons between specific phenomena and areas of vocational education may be fruitless and fail to contribute to our understanding of this field. Achieving this would

demand more comprehensive, contextualised and dialogical research, a process which demands time and co-operative effort, rare commodities during these times of efficiency and accountability in European universities.

This collection of articles addresses some important themes and raises a number of crucial issues, ones which could contribute to the project of developing co-operative cultural research on vocational education in Europe. First, it seems that apprenticeship is a fruitful starting point for discussion. On the one hand, it does touch essential aspects of vocational education as a specific form of education. On the other hand, it clearly shows how the overt forms of vocational education may have divergent meanings and functions in different periods of history, in different cultural contexts and for different groups of people. Secondly, the sharing of such slogans as 'apprenticeship' in European vocational education reforms indicates the pressures of overcoming national and cultural divergence in systems, and the difficulties in founding the reforms on co-operation of educationalists at a grass-root level. Third, the topic of apprenticeship puts to the fore the question of 'ownership of occupation' and 'ownership of education'. Is the popularity of the apprenticeship route an indicator of a trend to move competition and selection to occupational hierarchies increasingly outside 'democratic' procedures and control, to working life, employers, outside and after school? If apprenticeship could be a form of education, which is defined and controlled by professions or occupations themselves, do recent reforms actually promote it? If not, can it really gain prestige and be plausible?

Most of the papers in this book are still diagnosing and analysing changes in vocational education in relation to economical and political changes. Are we continuously forced to perceive vocational education as something reactive,

functional, as an instrument to economy and politics? There is little discussion on vocational education as 'an educational project', with its internal tensions, changes and continuities. At the end of the day, in any form or system of vocational education, it is the actors - policy makers, administrators, teachers, trainers, students - who carry the responsibility for the successful functioning of a programme. There is still much research to be done in order to understand how 'providers' and 'consumers' of vocational education and training experience the programme they relate to in their different roles.

October 1997

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Chapter 1

SCHOOL, WORK AND VOCATIONALISM: A HISTORICAL AND COMPARATIVE REVIEW OF THE MAJOR ISSUES (1970-1985)

Ronald G. Sultana

The literature which has developed from the debate about the relationship between school and work is extensive, especially so since the arrival of the so-called 'post-industrial' society and the crisis in employment, both of which have brought to the surface the problematic between what students expect from schooling, what formal education promises them, and what life after school presents them with. This chapter sets out to draw on some of the major studies that have appeared between 1970 and 1985 in such English-speaking countries as the United States, Canada, the United Kingdom, Australia, and New Zealand. The time-span considered in this review is significant: it leads up to the economic crisis and its aftermath, when the discourse regarding the link between education and the world of work was developed, and when governments had to find 'new' ways of managing the transition between school and un/employment. The focus on that period therefore has more than a merely historical interest. It provides a critical background to many of the debates that surround the field today, whether we are talking about vocational education, apprenticeship, or the preparation of students for productive lives.

There are no claims to comprehensiveness; rather, what is attempted here is a presentation of the key ideas as well as landmark studies. I will therefore first consider the historical relationship between school and work, and how this relationship has been problematised by developments in late capitalism, particularly the economic crisis of the early seventies. Particular attention will be given to the educational responses to the crisis, and how such responses led to the problematisation of the traditional links between schools and work.

It is hoped that this 'conceptual map' will help untangle the complex web of discourse surrounding the education and work nexus.

The historical relationship between schooling and work

There are various historical accounts which tie the development of education and schooling in the West to the demands of the new industrial era. Watts (1985) for instance draws on various sources to show that in nineteenth century England, schools became models of the factory system, ensuring that the type of worker needed by a society which had just gone through an industrial revolution was actually created. Factories required time-discipline, compliance, and a readiness to endure repetitive work. The new elementary schools were structured to promote all three, as well as to teach the basic skills of reading and counting that would enable workers to understand and carry out simple instructions.

By the end of the nineteenth century, schooling became compulsory in Britain. The subsequent increase in the number and diversity of student

population meant that the internal organization of the schools had to change and adapt to meet the apparent range of needs. Whitty (1985) follows Williams (1965) in locating three different interests in the notion of compulsory schooling. There were the 'public educators' who argued that men had a natural right to be educated. There were the 'old humanists' who argued that a limited education in appropriate attitudes and habits - diligence, thrift, sobriety, deference to superiors, etc. - was necessary for social and political stability. Finally, the 'industrial trainers' linked their concerns with those of the latter group to focus on the social character required by the work-place. Their views tended to predominate in determining the content of the elementary school curriculum and the method of pedagogy, with its emphasis on formal instruction requiring pupils to perform specified tasks within set periods of time determined by their teachers.

An increasingly technological society, following the dynamics of differentiation and specialisation, led to the development of schools mirroring the same characteristics. Thus we find the emergence of different kinds of schooling, different subjects, different teaching methods, and different expectations about schooling. This produced a system of what Turner (1960) termed 'sponsored' mobility, in which students were selected early for their status in terms partly of appropriate skills, but also of appropriate expectations, standards of behaviours, and values (Watts, 1985, p.11).

The rise of liberalism in the West injected a new egalitarian spirit into schools with the progressive movement of the 1950s and 1960s, but its appeal was to the middle classes, and its messages and methods were

individualistic, so the diluted spirit of progressivism entering the public school system encouraged meritocratic ideals under the guise of 'individual differences' The system of 'sponsored' mobility was thus replaced to some extent by a system of 'contest' mobility. Turner (1960) this to a race in which all compete on equal terms for a limited number of prizes, and in which premature judgments about the results of the race are avoided. Little if any attention was given to the ways groups from different classes, races and genders obtained advantageous positions in that race.

Schooling therefore continued to serve the interests of the economic order by providing the labour market with school leavers whose different kinds and levels of training fitted them to the kinds and levels of work available. This despite the fact that, overtly at least, almost all pupils became subjected to a more academic curriculum, with increased emphasis on the acquisition of knowledge and the ability to reproduce it on paper for the benefit of examination assessors (Dore, 1976). Watts (1985, p.12) remarks that despite the fact that the content of the curriculum became less relevant to the occupations which many pupils would come to perform, its connections with the world of employment grew no less, because certification determined access to jobs.

The revisiting of the paths taken by education since the Industrial Revolution leads to a recognition that a number of the taken-for-granted assumptions about the apparently 'natural' elements of modern schooling, such as the hierarchical arrangement of academic and manual subjects, had a beginning in a particular historical reality and in particular decisions made to satisfy particular and competing interests.

An examination of historical educational roots also shows that, in Britain as elsewhere, the professionalisation of education and of the public administration of schools helped to fossilise structures and practices developed in a distant past. Toffler (1970, p.360) could therefore warn:

> 'What passes for education today ... is a hopeless anachronism ... our schools face backwards toward a dying system. Their vast energies are applied to cranking out industrial man. It was for this reason that education, in its very structure, simulated industrialism.'

The crisis in employment and educational responses

Toffler wrote the above when the world was poised on the brink of a major economic crisis. Rising levels of inflation accompanied by increasing rates of unemployment caused consternation in economic policy-making as economists and governments strove to understand and control a situation not experienced before and extending beyond the realms of popular economic theory. What had been, in a period of economic expansion, a simple, straightforward link between increased opportunity in schooling, and economic growth as a personal as well as a social goal now became problematic. Conventional wisdom had previously reinforced the meritocratic ideology discussed above, where ability and effort led to attainment and an appropriate job, and failure was the result of deficiencies in the individual.

This sort of linear progression was shattered by the crisis in employment, which produced what Habermas (1976) calls a 'legitimation crisis'. Educational and occupational systems declare the need for motivation, but when the socio-cultural system fails to provide this motivation, in this case through its failure to provide employment, a motivational crisis, the basis of a legitimation crisis, occurs. In many ways education lost its legitimacy not only with students who failed to get the 'reward' they had striven for and been promised; it also lost its legitimacy with sections of the public and with governments.

Education in the 1950s and early 1960s had been viewed as the key solution to the many dimensions of 'development' - increased productivity, improved health, reduced birthrate, the modernisation of industry and agriculture, and the development of stable governments. By the mid-1970s however, disillusionment with the results of investment in education and training had set in almost wor1d-wide. Education was blamed for increased unemployment, reduced educational opportunity, a widening of the disparities in income - and much else besides. In this situation, various groups emerged to generate 'new' forms of discourse about education.

These are considered in turn under the headings of 'the new vocationalists', 'the critical educators', and 'the rhetorical humanists'.

The new vocationalists

A lot has been written about the so-called 'Great Debate' in education (for a definitive account, see Whitty, 1985) which began in Britain, but had definite parallels elsewhere. As Wiener (1981) suggests, it is useful to see the 'Great Debate' as one of a succession of attempts by the 'industrial trainers' - in Williams' (1965) typology - to change the balance of the curriculum compromise in their favour.

Elements of this 'Great Debate' included demands for greater standardisation of the curriculum and attempts to define and defend a core of 'central' curriculum subjects. This signalled a 'return-to-basics' programme emphasizing literacy and numeracy, and a movement away from the more progressive education of the 1960s to prepare students better for a competition for a declining number of jobs. Thus, the supposedly peripheral subjects - what their detractors often termed the 'frills' - came under scrutiny and attack wherever capital accumulation was in crisis. Whitty (1985) provided an account of such critiques in the U.K., and Wexler et al. (1981) and Openshaw (1980), among others, described similar attacks on the curriculum in the United States and New Zealand respectively.

In a major study of unemployment in the early stages of the economic crisis, Carnoy (1977) pointed out that it is much easier to address youth and education and blame them for the crisis rather than look at the source of it and try to redress the economy. In the United States, Apple (1982, p.54) considered such trends as a reflection of an old strategy:

'When larger economic and governmental crisis erupt, export the crisis outside the economy and government onto other groups'.

The agenda launched by the 'Great Debate', and the increasing emphasis to make schooling more responsive to the needs of industry, created what various authors (Gleeson, 1984; Bates et al., 1984; Dale, 1985) began referring to as the 'new vocationalism'. This 'new' educational discourse hinged around the idea that the provision of continued in-school, and new post-school training and education programmes would provide a much closer link between schooling and work, as well as a more highly skilled, flexible and adaptable workforce. Such provisions were also seen by the 'new vocationalists' as a means to lessen unemployment as young people chose training, rather than work. Moreover, as young people became more highly trained, they would be better able to make choices about work.

Grubb (1985, p.547) discussed the attraction of vocationalism at length, and threw light on its revival after its demise in the more egalitarian 1960s. He argued that:

> 'Vocationalism is powerful because it appeals to many groups, especially in its more general forms. It gains support from students in search of jobs; businesses in search of trained workers; education in search of students and an important social function; and politicians in search of popular reforms that appear to address social and economic problems.'

He also noted that the attraction of vocationalism came from its ability to serve several contradictory roles of education simultaneously. It promises to reward individual students while still addressing more collective goals like unemployment and national development. It also promises equality of opportunity through education within unequal societies where the pressures to reproduce inequality are even greater. Given a continuing dualism in thinking about human capacities and therefore about education, vocationalism promises to serve simultaneously the 'hand' and the 'mind', the practical and the abstract, the vocational and the academic.

Carnoy and Levin (1985) and Apple (1986) among others showed that the discourse of the new vocationalists also gained currency in the United States, so that opponents of the social, racial, and gender gains could assert their agenda. Apple (1986) argued that schooling increasingly became challenged to make US industry competitive again through the increased rigour of education and training. Commissions of enquiry followed and various reports were issued, with two becoming especially important in terms of national sponsorship and dissemination. *A Nation At Risk* and *Action for Excellence* argued that much of the economic malaise of the nation was attributable to its educational weaknesses and recommended specific reforms for raising educational standards. The terrain of the debate thus shifted from a concern with inequality and democratisation which had characterised the previous decades, to one of efficiency, standards and productivity. A large part of the solution to the crisis was seen as making schools and their curricula more responsive to industrial and technological needs.

In Europe too vocationalism became a new focal point of interest. Two major projects organized first by the Council of Europe's Council for Cultural Co-Operation (1979-1982) entitled *'Preparation for Life'* and then by the European Community (1976-1980; 1983-1986/7) entitled *'Action Programme: Transition of Young People from Education to Adult and Working Life'*, served to focus attention on the relationship between education and work. The former project reported on curricular experiments for preparation for work in ten of the Council's member states, and made specific recommendations. Declarations of policy were made by various Ministers of the member states, linking education to economy even more officially.

The second project was especially influential as it involved hundreds of schools and training institutes in thirty areas of Europe, including the U.K. (see Wilcox et al., 1984; Varlaam, 1984). Moreover, an international information network was professionally set up, so that thousands of teachers could use the data collected. Curriculum endeavours which linked education to industry were highlighted, and included the development of work experience schemes, careers guidance, education for enterprise, cooperation and partnership with local or regional industries, and alternative curricula (see European Community, 1984 and 1985). All these elements come together in 'transition programmes' which burgeoned in secondary school systems in many countries. Such programmes will be described in detail in a later section of this chapter in a consideration of the role of education in orienting students towards the world of work.

The formulation of the structural crisis of the capitalist state as a problem of young people rather than a problem of the economy became also evident in the within-school and post-school training schemes set up in various countries. The former initiatives introduced technical and vocational elements into the curriculum for a range of pupils by having closer links between secondary schools and technical institutes, and perpetuated the notion that more education, with an emphasis on training, would lead to employment.

The critical educators

Another group of educationalists responded differently to the crisis, and placed itself squarely in opposition to the views expressed in official documents of the state. They regarded the 'new vocationalism' as fulfilling a control function which schooling was being called upon to provide following the breakdown of meritocratic ideology. Sharp (1984) for instance suggested that in a situation of large-scale unemployment in a competitive world economy, governments find themselves on the horns of a dilemma. On the one hand, they have to attempt to socialise and occupy the potential unemployed so that this group is not a threat to the state (and education is obviously a prime instrument for this); on the other hand, in the interests of economic competitiveness, they have to restrict spending on education.

To accomplish this, Sharp suggested, governments in all 'western' capitalist countries are drawn to make education more efficient and more

directly instrumental in producing appropriate skills and attitudes. At the same time however, they also attempt to divert attention from the processes at work by substituting rhetoric about standards, basic skills, vocational training, accountability for previous concerns with equal opportunity, child-centred progressivism, liberal education, and so on. The views expressed by Sharp are similar to those made by other writers associated with the 'new' sociology of education and closely linked to a neo-Marxist and culturalist interpretation of education. Within this camp, Carnoy and Levin (1985), Apple (1986) and Finn (1982) among others, criticised the 'high-tech' solution to the crisis, where the needs of industry take precedence over the needs of democracy.

Giroux (1985), a prolific writer within the 'new' sociology of education perspective, considered the movement in the U.S.A. leading towards a 'new consensus' that appealed to principles of industrial efficiency, control, and administration as central theoretical elements in developing school programmes. He linked the crisis in education to the crisis in democracy and argued for a view of public education that took as its starting point, not the privatistic, technical, and narrow economic interests that were increasingly defining the debate on public education, but the relationship of schools to the demands of active forms of community life. Schools were therefore to be seen as places that prepared people for a democracy, and not simply the workplace. Attention was also drawn to those repressive material conditions of school life embodied in hierarchical school structures, the unequal resources that separated poor from affluent schools, and the tracking and sorting systems that cut short the futures and dreams of so many youth from subordinate groups. Giroux (1985) criticized the 'structured silence' regarding those ideological con-

ditions in public education that made invisible the histories, knowledge forms, and social relations of excluded majorities while simultaneously legitimating dominant middle-class and ruling-class cultures and social practices. A reconstruction of public education would thus begin with the imperative to awaken the moral, political and civic responsibilities of all learners.

This perspective therefore attacked the new vocationalism, whose agenda for schools was to produce what Cathcart and Esland (1985) referred to as the 'compliant-creative' workers needed by modern industry. Instead, critical educators advocated the need for schools to examine the 'what' and the 'how' of the curriculum with an emphasis on demystifying academic study and providing knowledge for all students which would enable them to negotiate and change the economic, social and political systems which affect their lives. Rather than dismantling the gains made by the liberal humanism of the previous decades, this perspective built on and extended this humanism into the social sphere. It saw individual initiative in its social context, and considered the quest for social justice and critical development of the culture in social terms. It required not only an understanding of work and of the ideas of our culture, but also the idea of power: students come to understand how power is used in society, both in the arrangements of economic processes and also in the arrangement of everyday social life itself (ideology).

From such a perspective, Simon (1983) turned the 'new vocationalism' on its head: instead of teaching for work, Simon advocated that schools present 'adult life', 'society', the 'real world', the 'world of work' not as taken-for-granted realities but as the subject of inquiry, where the world

is continually being produced and reproduced by the actions of men and women, and often, as Marx said, on terms not of their own making. Simon (1983, p.238) thus argued:

> 'If the realities of the workplaces are indeed sets of social relations defined through power and in support of particular interests, to present them as if they were naturally occurring phenomena, historically neutral and obviously necessary, is to mystify people and to act to render them powerless. By helping people solely to adapt to 'what is', you help to maintain what is.'

Critical educators considered such an agenda central to the curriculum, and cited research like that carried out by Cathcart and Esland (1985), and Rees and Atkinson (1982) in the U.K, Lind-Brenkman (1983) and Gaskell (1986) in North America, and Sultana (1987) in New Zealand which showed that schools generally promote an idealised view of industry, and that the pedagogical materials presented by teachers generally enjoin students to foster an understanding (i.e. 'acceptance') of the 'wealth creation' process and a recognition that industrial growth, consumerism and new technology are synonymous with progress. Critical educators therefore argued for an education which put knowledge and power over their own learning into young people's hands, an education which supplied young people with a materialist understanding of their world and its history that would enable them to work together to change that world into a more democratic version.

The 'rhetorical' humanists

Another identifiable group which shared some perspectives from both the other groups described above (i.e. those supporting a 'new vocationalism' and those in opposition to this) placed a greater emphasis on the need to prepare youth for increasing amounts of leisure time. Those who wrote from this perspective pointed out to the benefits of unemployment: education could be freed from its utilitarian functions and geared more steadfastly and single-mindedly to personal development and fulfilment (Musgrave, 1977). Generally speaking, proponents of this perspective allied themselves to the social and lifeskills-type of education as formulated in the U.K. by Hopson and Scally (1981), but failed to look beyond this to consider in any depth the ways in which society is structured so that some groups but not others attain positions of power and privilege. It also failed to address in any realistic way the effect of the 'broken transitions' which unemployment had brought about, and which were well described by Willis (1986).

Arguments in favour of education for leisure tended to be tinged with an idealistic humanism which had not been soiled by the daily hardship many of the unemployed face. An example of this perspective can be found in Sweet (1981, p.82), when he argued that:

> 'The future generations should realise that their education is for cultural appreciation, work and leisure and that at some time in their lives, they will probably not be gainfully employed and that this period of time can be enriching, that is challenging, enjoyable and purposeful.'

Such notions were rejected by educators from the Left (Pearl, 1978), because they saw it as a deflection from the real issues since no attempt was made to enable youth to understand and control the events which affected their lives. Offe (1985, p.95) found three major problems with 'leisure education' and the 'do-it-yourself' type of activities which often consumed more earned income than they help to save. Offe enumerated the difficulties, which

> '...have to do with problematic distribution effects which typical households or individuals can overcome only within very strict limits and to a highly variable degree. The scope actually available for 'autonomous' activities is typically constrained, first, by a shortage of material resources (such as physical space and other facilities); second, by a lack of personal qualifications, discipline and psychological dispositions, and finally, by the absence of institutional structures which could guarantee minimum levels of efficiency and continuity, as well as security of expectations and control among their participants.'

Offe therefore rebutted euphoric references to the beauty of 'freely chosen activity' or to 'the bliss of self-exploitation' which were finding favour with some educationalists, and concluded that people had to be provided with the appropriate institutional and material resources which would enable them to carry out their self-chosen activities. Any other solution would likely 'amount only to a camouflaging of the violence, misery and hopelessness of an economy of lifeboats, in which there would always be too few seats.' (Offe, 1985, p.95). Moreover, as

Dwyer et al. (1984, p18) pointed out in an Australian context, despite the claim that society was on the edge of a new social ethic in which 'full employment' would cease to be a major priority, there was little doubt that in the circumstances that prevailed then, the penalties for failure to gain entry to the workplace were as severe as they had ever been.

In New Zealand, Bassett (1984) criticised the discourse of rhetorical humanists, pointing out that the notion of leisure involves a conception of freedom and choice, and must consequently exclude overtones of oppression or coercion. In a New Zealand context too, Gordon (1985) argued that the best way to ensure good life skills was to provide good life chances.

Linking education and work: reconsidering the tradition

In a previous section it has been suggested that various forces and interests influencing the discourse about the school/work nexus surface and submerge at various historical periods. The predominance of business interests, efficiency and production (as represented by the new vocationalism) or of democracy and equality has to a large extent defined the bonds between schooling and work. Traditionally, the dominant theoretical focus used to formulate the issues and questions on education and the economy has tended to be functionalism. Halsey et al. (1961, p.3) maintained for instance that

> '...as the economies of the advanced countries are increasingly dominated by scientific and technological innovation, education

and the economy become more closely geared, until the education system occupies a strategic place as a central determinant of the economic, political, social and changing relations of education.'

A central feature of this functionalist perspective is the way in which the educational system is construed as being essential for economic growth and the development of resources in an industrial society. It is argued firstly that schooling provides each generation with the skills demanded by increased technological and occupational requirements; secondly that the selective mechanism of schooling helps to allocate individuals to particular jobs; and thirdly that schooling contributes to consensus and to a cohesive society.

By the1970s however, Marxist and neo-Marxist perspectives attracted a considerable following among sociologists of education, and the traditional bonds between education and the economy were subjected to a number of challenges based on empirical and theoretical work. Contributions from different educational perspectives and reflecting the concerns of the 'new vocationalists', the 'critical educators' and the 'rhetorical humanists' are here organised around the categories traditionally used to represent the bonds between school and work. These refer to the role of schools in socialising, selecting, orienting and preparing students for work, and therefore in enhancing their and their nation's economic development.

(a) Socialisation

In his account of the development of the 'new' sociology of education, Whitty (1985) noted that various types of macro-theory emerged during the mid- and late1970s as candidates in the quest to explain the relationship between education and the wider structure. Most of these were, to a greater or lesser extent, influenced by Marxism and could be roughly categorized as correspondence theories, reproduction theories and hegemonic theories. Hogan (1982, p.55) also noted that such socialisation models gained pre-eminence in examining the relationship between work and schooling. These specify some organisational feature of the school that is believed to be responsible for socialising children into the normative requirements, the values, behaviours and dispositions, of the world of work.

Callaghan (1962), Cronin (1973), Tyack (1974) and Katz (1975) represent one account from the socialisation model which highlights the formal bureaucratic features of schooling, including the centralisation of control and supervision, the standardisation of procedures, the rationalisation of the education process in the form of class grading, uniform courses of study, standardised written exams, competition for grades, intense activity, and strict behavioural rules. Hogan (1982) noted another approach proposed by Dreeben (1968) that linked ecological features of the school with the normative requirements - universalism, specificity, achievement, and independence - 'required' of modern occupational life. Dreeben (1968) stressed that the age-graded, relatively autonomous classrooms of specific size, composition, degree of differentiation, scheduling

and reward structure provide students with the social experience necessary for learning occupational norms.

The macro-perspective

However, the best known account from a Marxist perspective focused on the processes by which schools reproduce the social relations of production. This account was developed in the United States by Bowles and Gintis (1976) and their argument highlighted the form rather than the content of the educational encounter. It minimised the significance of the overt, as opposed to the hidden curriculum of schooling, in securing social reproduction and the legitimation of inequality. Their basic argument was that the relations developed variously between teachers, administrators and students correspond to the relationships developed in the workplace. The fragmentation of the learning process, the students' lack of control over their own work, the attitudes required of them, and the extrinsic motivation via grades, all reflect the capitalist productive process. Thus schools prepare young people for the social relations of production by imposing equivalent relations upon them from an early age.

In addition, Bowles and Gintis (1976) argued that the different levels of the educational system could be seen to feed workers into different levels in the occupational structure, and the internal organisation of these different parts of the education system produced different habits and personality traits appropriate for different positions in the hierarchical divisions of labour. Thus, working class schools tend to be authoritarian structures in which the norm of rule-following is emphasised. In contrast

are middle class schools which encourage a greater degree of independent activity, thus preparing workers who would not require constant supervision. The highest levels of education gave students even greater freedom and initiative since in the workplace such qualities were likely to be used in the interests of enterprise rather than against it. Bowles and Gintis also argued that capitalists directly intervened in the formation of the education system, and that every major transformation of the educational system and ideology has been precipitated by a shift in the structure of production, in the class composition of the workplace, and in the identity of the oppressed groups. Thus, capitalists structure the schooling system to meet the needs of capital, which reason, together with the undemocratic nature of economic life, has resulted in the schools' failure to fulfil their egalitarian and developmental objectives.

Bowles and Gintis (1981) were later to revise their initial thesis in an attempt to overcome some of the central weaknesses inherent in their work and identified by sociologists of education both outside and within the Marxist camp. Criticism was levelled at their statistical methodology (Coxhead, 1977) but the major flaws were in their account of the rise of mass schooling, their picture of the capitalist system of production, and in their characterization of the correspondence between education and work (Hogan, 1981). As it first stood, *Schooling in Capitalist America* was within the tradition of 'scientific', 'economistic' Marxism, inasmuch as the model of capitalist society the authors presented was structuralist. Their initial work emphasised the structural integration of the institutions of capitalist society, and in so doing denied institutions such as schools any autonomy from the economic base. This reveals the work's ideological link to European sturcturalism as represented by its main

figure, Althusser. Bowles and Gintis' work is also structuralist in that it presents a structurally determined view of human beings in capitalist society, thus denying the importance of human agency.

Their structuralist and deterministic account came to be seen as a vehicle for a language of pessimism rather than one of possibility, a view which presented a monolithic view of domination and an unduly passive view of human beings (Giroux, 1986). Burbules (1986) noted that correspondence and reproduction theories formed the early phase of radical scholarship in education, as characterised not only by Bowles and Gintis, but also by Althusser (1971). This approach typified the 'thesis of inevitability', which meant that despite some 'contradictions', schools must necessarily function in this way. Aronowitz and Giroux (1986, p.71) pointed out that such an approach offered little hope for challenging the repressive features of schooling.

What Burbules (1986) termed the 'second phase of radical scholarship' in education took these 'contradictions' and saw within them spaces for radical transformation. Gramsci rather than Althusser became the theoretical base, and Marxist scholarship attempted to typify his 'pessimism of the intellect and optimism of the will.' A major influence in this context was Willis, whose *Learning to Labour* (1977) stressed the concept of 'resistance', that is the capacity of students to engage in various rebellious and oppositional activities that to some extent 'penetrate' structures of domination. Hence, while reproduction occurs in that working class kids do get working class jobs, it does not occur smoothly or without contestation. Willis' analysis appeared to fit more closely with em-

pirical reality and went beyond the monolithic view of the correspondence principle.

In this regard, Apple (1981, p.6) warned:

> 'By focusing on schools only as reproductive institutions, we may miss the dynamic interplay between education and an economy, and be in danger of reducing the complexity of this relationship to a base parody of what actually exists at the level of practice.'

Finn (1982) also showed that it was historically incorrect to define the work schools do merely as producing 'factory fodder', because education has been the object of other, sometimes contradictory demands. Thus, educational policy has had to deal with among others the demands of parents, and those of working class and other subordinate social groupings.

This emphasis on contradictory demands formed the cornerstone of Carnoy and Levin's (1985) major thesis, where they demonstrated how education has had to respond to pressures exerted by social movements. As Apple (1986, p.403) noted, Carnoy and Levin's *Schooling for Work in the Democratic State* bore 'the marks of the concerns of the early to mid-seventies with the relationship between economy and schooling and is a return to the economic problematic of that period.' Unlike the earlier study of Bowles and Gintis, however, Carnoy and Levin made use of the advances of radical scholarship in education to both recognize and support culturalist and political theories and thus went beyond previous economically oriented investigations. They distanced themselves from

authors like Apple and Giroux, however, who they described as representing the 'critical autonomy view' and who they see as putting too much emphasis upon culture and ideology at the expense of the link between educational practices and the organisation of production as the underlying social dynamic.

Carnoy and Levin built on the correspondence principle to suggest that the relationship between education and paid work is dialectical, characterised by a perpetual tension between two dynamics: the imperatives of capitalism and of democracy. Thus, schools respond to the needs of the capitalist workplace and to the values and expectations associated with the democratic rights of citizens. In any historical point in time, there is a tendency for one aspect of the duality to gain primacy at the expense of the other. Thus, when social movements are weak and business ideology strong, schools tend to strengthen their function of preparing and socialising pupils for paid work.

Carnoy and Levin's work marked the field because the authors analysed the role of the State itself as a critical factor in explaining what education does. In this way, their approach led to the development of a more sophisticated understanding of the state, and its educational agendas during a time of economic crisis.

The micro-perspective

With the exception of Carnoy and Levin's (1985) work, analyses of the role of schooling in socialising students for work have - during the period under consideration - tended to focus on the way the reproduction

process manifested itself in classroom dynamics and in the content of curricula. The following are some examples of work within a micro-perspective which were published between 1970 and 1985, and which attempted to describe the intricate relationship between economic and social forces and the realities of students' everyday lives.

The best known account from this micro-perspective is Willis's (1977) influential ethnographic study which attempted to reveal the subjective and cultural formation of particular kinds of labour power, particularly what happens in schools to ensure that 'working class kids get working class jobs'. His ethnography described how a form of male proletarian counter-culture is mediated, via family and neighbourhood, to the school, emerging (in combination with elements drawn from other contexts) as a counter-school culture - the culture of 'the Lads'. This culture is manualist, rejecting the liberal curriculum of the school and its promises of upward mobility to mental rather than manual work; it is sexist, celebrating forms of male behaviour which encourage oppressive domination of females; and it is racist in its assertion of superiority over students of Asian and West Indian descent.

Through making and re-making their own culture, 'the Lads' exercise a certain freedom and autonomy, transcending sheer cause and effect mechanisms of social structures which was pivotal to Bowles and Gintis' work. 'The Lads' also see through - 'penetrate' - the ideological mystifications of schooling, such as doctrines of equal opportunity, credentialism and career choice. They reject school work as mental labour, which they associate with obedience, conformity, subordination and lack of 'manliness'. They evaluate and reject the exchange proposed by school-

ing: knowledge for respect, guidance for control, success for obedience. To accept such an offer would mean too much for them, for it would cost them too much autonomy, too much masculinity, too much self-direction, in return for what they believe to be the empty promises of conformity and mental work. They thus engage in a struggle to win symbolic and physical space from the institution, its rules and its purposes: to make students work. Against the rules and meaning of the school, they pursue strategies of resistance and survival: truancy, skipping classes, 'having a laff', games, sleeping, smoking and drinking. Such resistance, from Willis's neo-Marxist perspective, is a contradictory phenomenon, in which the elements of struggle can mean both creativity and oppression, openness and closure, class power and class defeat, self-liberation and reproduction of their oppressed positions.

Another study related to the micro-perspective is Apple and King's (1977) work which showed how the 'hidden curriculum' functions within the context of cultural reproduction. Their research in kindergartens showed how concepts of 'work' and 'play' form part of the deep structure of school life. Thus, the basic and organising framework of commonsense rules that is negotiated, internalized, and which ultimately seems to give meaning to our experience in educational institutions, appears to be closely linked to the normative and communicative structures of industrial life.

'As part of their initiation into the kindergarten community, young children also receive their first initiation into the social dimension of the world of work. The content of the specific lessons is relatively less important than the experience of being a worker. Personal attributes of

obedience, enthusiasm, adaptability, and perseverance are more highly valued than academic competence. Unquestioning acceptance of authority and of the vicissitudes of life in institutional settings are among a kindergartener's first lessons. It is in the progressive acceptance, as natural, of the world *tout court* of meanings of important and unimportant knowledge, of work and play, of normality and deviance, that these lessons ride.' (Apple and King, 1977, p.353).

Anyon's (1980, 1981) work in the United States amplified and developed Bowles and Gintis' thesis. She found that different social backgrounds develop different relations to capital, and that working class children develop a potential relationship with capital. What makes her study different from earlier empirical examinations of the hidden curriculum is that she examined not so much the creation of specific dispositions and personality attributes, but the fostering of particular relationships to production. Anyon thus identified, in the hidden curriculum of working class schools in particular, the reproduction of forms of resistance and struggle which also characterise working class resistance and struggle in production.

Carlson (1982) reported similar findings in his examination of the implications of a popular systems approach to individualised instruction, specifically with regard to the conception of the individual and of work incorporated in and reproduced by individualisation. In an ethnographic study of McCann School which used an individualised instructional delivery system, Carlson showed schools to be the primary institutions in which individuals learn to construct the self along economically functional lines prior to entry into the labour market. The overriding logic in

the classroom was an economic one of efficiency, productivity, and centralisation of management control, which led to a bifurcated and instrumental individualism as a way of being-in-the-world and relating to work. Thus children at McCann School learnt to look almost exclusively to a private social sphere to supply what was considered as inevitably lacking in work, and to accept this as a reasonable 'tradeoff'. They learned to view work as a somewhat disagreeable but not overtaxing routine, and to focus most of their interest in a private track of experience which coexisted with, but was seen as separate from, the work track.

Carlson related these processes to capitalist modes of organisation, where schools are viewed as 'carriers' of capitalist modes of consciousness and selfhood. Resistance among the children thus took the same forms as exhibited by workers in an environment which relied on minute divisions of labour to increase output, and these industrial parallels included 'soldiering', 'doubling-up' and 'work stoppage'. Carlson also related the work of the school counsellor to the human relations movement within industry, since both function to 'provide a pseudo-democratic sense of involvement and participation, to mask the fact that children had little real input in the formulation, design, or content of the curriculum' (Carlson, 1982, p.156).

Another study from this micro-perspective is McLaren's (1986) research, which drew from work in ritual studies to analyse classroom interaction in a junior high school in downtown Toronto. Classroom instruction was discovered to be part of an intricate ritual system and was differentiated along religious and secular dimensions. McLaren discovered two root

paradigms pervading all of classroom life, and these - 'becoming a Cotholic' and 'becoming a worker' - reflected the values of the larger society. McLaren argues that corporate capitalist values associated with 'becoming a worker' complement closely those values associated with 'becoming a Catholic'.

While the above accounts focused on social class and the socialisation by school of students into a labour segmented society, the seventies and eighties generated several studies showing that such differentiation was also based on gender and ethnicity. Thus, for example, MacDonald (1980) showed that the social relations of schooling not only prepared the working classes for obedience, but they also prepared women to be subordinate to men. Deem (1981) argued that within the ideology of the 1960s in the U.K., any notion of preparing girls for a dual role (in waged work and in the family) was confined to middle-class girls. For working-class girls the emphasis remained largely on preparation for carriage and childrearing. In Griffin's (1985) answer to Willis' (1977) sole concentration on male culture, she showed how the rise of unemployment had highlighted issues like the need to strengthen family life.

(b) Selection

Earlier in this review the way in which schooling has increasingly moved towards a meritocratic concept - where 'sponsored' mobility is replaced by 'contest' mobility - was described. As a result of this development, the educational process has ceased to be concerned simply with the transmission of skills and values, and has increasingly taken on the functions of allocating and selecting as well as training individuals for

their adult roles. Dale and Pires (1984) refer to this as the 'technical functional theory' of the relationship between education and the economy, which states that there is an ever changing (until recently, ever increasing) need for stills in the economy, that these skills can be taught in schools and that the chief function of the education system is to provide its products with these skills. This process ensures both that the economy is provided with the appropriately skilled labour and that schools provide pupils with occupationally relevant skills and knowledge.

'The nexus of this relationship is the qualification, the credential provided by the education system. In this theory, the qualification demonstrates, or at the very least indicates, the possession of the required skill or knowledge.' (Dale and Pires, 1984, p.51).

Qualifications are thus meant to ensure efficiency, where the most able people can find their way into the most important and demanding jobs, and equity, making it possible for the social status of individuals to be determined by their talents and their efforts rather than by accidents of birth.

Various studies have shown that justification of this sort of credentialism is in practice untenable. With regard to 'efficiency', Berg (1970) and Collins (1979) provided fairly conclusive evidence that vocational skills are by no means learned exclusively in school, and that better 'qualified' employees are not necessarily more productive than less 'qualified' ones. Dore (1976) related this fact to the tendency of professional associations to constantly upgrade the educational qualifications required for entry in the search for reduced supply and increased status. Berg (1970) referred

to this as 'meritocratic inflation' and found that it could proceed to the point there it reduced workers' productivity and satisfaction because they consider themselves overqualified and underutilised.

Hall and Carleton (1977) in Canada, and Ashton and Maguire (1980) in Britain found that employers do not in practice place emphasis on educational qualifications as schools often imagine they do. Similarly, MacLean (1980) discovered that while most of the New Zealand employers he interviewed wanted school-leavers to possess qualifications, very few of them had any idea what was required by particular subjects. Reid (1983) and St. George and Smith (1983) noted the same patterns among employers with reference to New Zealand University Entrance qualifications. Such evidence reinforces the idea that in the mind of employers, 'qualifications' refer to attitudes rather than specific skills.

In a British study of the recruitment procedures of the Ford Motor Company, Salaman (1979) found that selectors were looking for candidates who showed an ability to internalize the values and attitudes the company stressed. Ashton and Maguire (1980) showed that even at the higher levels of the occupational hierarchy, qualifications were often necessary but not sufficient. Thus, their study showed that employers used qualifications as a convenient pre-selection device, but thereafter paid little attention to them.

Vinokur (1982) moreover pointed out the central weakness of technical functional theory: its narrowness of assumptions. These assumptions seem to draw on, and to be possibly valid for only a very limited range of occupations, where a range of implicitly high-level skills can be

shown to be both closely specifiable and to be patently tenable. Dale and Pires (1984) noted an even greater obstacle to the theory, given the arguments about the 'deskilling' implications of jobs (Braverman, 1974).

In spite of these fundamental critiques however, Blau and Duncan's (1967) status-attainment model has been supported by a solid body of empirical work, so that while research has proved that credentials don't necessarily help people *do* jobs better, there can be no denying that they do help them *get* them and *advance* in them (Fitzgerald 1986). Dore (1976) developed a very comprehensive taxonomy of the links between education and earnings, and distinguished only one mechanism - that in which parental wealth and connections are crucial - which night easily operate independently of educational certification.

The equitable concerns certification claims to defend, where talents and efforts rather than social background are supposed to determine status, are also subject to scepticism. Collins (1979) in the United States, and Bourdieu and Boltansky (1978) and Bourdieu and Passeron (1977) in France came to similar conclusions even though the former focused on the 'sinecure' sector which is bigger than the fractions of the upper middle-class on whom Bourdieu and his colleagues concentrated. Thus, Collins (1979) saw credentialling as a vehicle used by the groups he investigated to exploit the possibilities provided by an expanding society in order to establish themselves in secure occupational niches. Bourdieu's (1978) upper class use credentials as the last defence of their privileged position, in the wake of changes in the structure of the economy and the nature of authority. Changes in the inheritance system and economic structure led the upper classes to make more intensified use of

the education system to secure the positions previously guaranteed by the direct transmission of economic capital. Bourdieu and Boltansky (1978) argued that this led in turn to a greater intensification of the use of the education system by all classes and consequent inflation of academic qualifications. This is a method of

> '...conversion of economic capital into certified cultural capital. [This] can constitute a strategy which allows families who occupy the dominant positions in the ruling class to maintain their control over the field of business whilst ensuring for their children, through the intermediary of the school, the qualifications which authorises them to appropriate a part of the economic benefit of companies in the form of salaries' (Bourdieu and Boltansky, 1978, p.209).

Bourdieu and Passeron (1977) also argued that the more rigorously the relationship between qualifications and posts was codified, the more useful would educational capital be. Conversely, the fuzzier the definitions for posts and required qualifications, the more significant did strategies of bluff become, and the more 'the possessors of social capital (connections, manner, bearing, etc.) can obtain a higher rate of return on their educational capital' (ibid., p.145).

Berg (1970) too argued that on the one hand, the privileged retain their relative advantage by buying their children a prestigious education, whilst on the other they protect their privileged place within the workplace by joining professional associations which attempt to increase the training time necessary for entrance to the profession. Halsey et al. (1980,

p.218) moreover argued that credentials in effect 'sabotage egalitarian reforms [because] as the working class clear one hurdle, another is set up in their path leaving the service class always one flight ahead.' Willis (1977) showed that the scepticism about qualifications amongst 'the Lads' constituted an awareness that no amount of certification amongst the working class would produce more jobs or more job mobility, but that it might produce social legitimation for those who seem to have succeeded through them, and preparation for job discipline for those who have not.

The discussion has so far focused on the factor of social class as a variable in the nexus education/employment, without denying the possibility that, as Dale and Pires pointed out (1984, p.58), other groups (identified by their trade union membership, ethnic, regional or even neighbourhood attachments) generate forms of social capital exclusive to themselves. But the failure of the technical functional theory of credentialling to promote equity is also clearly and dramatically obvious when we consider other variables, such as gender, ethnicity and age. In this regard, Williamson (1983) discussed the peripheralisation of youth in the labour market, and Finn and Frith (1981) described the process of the creation of a reserve army of labour made up of young people which is drawn on when needed and laid off when not.

Fitzgerald (1986) summarised American research spanning three decades to show that the relationship between educational level and occupational attainment breaks down for women and members of black minorities. These groups have been consistently unable to convert their education into financial returns in the same way that is true for white

men. Hill (1980) for instance found that white high school dropouts had a lower unemployment rate than black youths with some college experience. Hanushek (1981) reviewed possible sources of black-white earning differences, and concluded that, if schooling and experience levels are held constant, 90% of the earnings gap would be closed if blacks and whites were equally rewarded for their skills.

With regard to women, a U.S. Department of Labour (quoted in Fitzgerald, 1986) study showed that a woman employed full time who finished High School was no better off financially than men who have failed to complete elementary school. Betz and Fitzgerald (1986) showed that although women had historically achieved higher levels than men in traditional secondary education, they remained over-represented in traditional, low-level and low-paying occupations. Wickham (1986) provided similar evidence for the United Kingdom, while the same conclusions have been reported in New Zealand research. Hyman (1981) showed how New Zealand women are over-represented in less highly skilled and/or lower paid jobs, even though, as Welch (1986) points out, a greater proportion of women than men leave school with a higher qualification than School Certificate. In the same context Spoonley (1978) demonstrated the role of Pakeha ('white') 'gatekeepers' in barring Maoris and Pacific Islanders from jobs, even when their academic qualifications were higher than those of Pakehas.

Such facts give credence to Connell and his colleagues' (1982) conclusions in their discussion of Australian schools and curricula, where they considered the establishment of a link between meritocratic schooling and the labour market. Building on Bourdieu and Passeron's (1977) no-

tion of schooling as trading in cultural capital, Connell et al. (1982) viewed schooling as a set of institutional rules which classify and allocate individuals to positions in society; it symbolically redefines graduates as possessing particular qualities and skills gained through attendance at school, and this occurs independently of whether or not any actual changes in competency, skills or values have occurred. Connell et al. (1982, p.197) therefore asserted that the school was a 'sorter and sifter' and credentialling 'a major form of labour market differentiation'.

(c) Orientation

A third aspect of the relationship between education and work refers to deliberate curricular interventions designed to help students understand the world of work, and to prepare them for the choices and transitions they will have to make on entering it. What this means in fact is the bringing to the surface and reinforcing of the structures embedded deeply in schooling which have been described under the area of socialisation.

As has already been discussed in consideration of the rise of the 'new vocationalism', the demand for 'better' orientation for work gained increasing currency in the seventies and eighties, with proponents criticising schools for not being efficient enough in reproducing the values and social relations of the workplace. In the U.K., Scharff (1976) and Bazalgette (1978) argued that schools did not mirror the world of work well enough, but that they instead encouraged patterns of dependency and immaturity which inhibited the process of transition to adulthood and to employment. Wiener (1981) pointed out that the 'gentrification of the in-

dustrialist', through a schooling system which disdained vocational application and particularly industrial manufacture had contributed significantly to Britain's economic decline. Benavot (1983, p.67), examining the global rise and fall of vocationalism through educational history, commented that teachers were educated in the '...prevalent ideology of egalitarian education [which] tends to view vocational programs with disdain. They are seen as narrow forms of schooling that limit future access to higher educational and occupational positions and retard the development of individual self-expression.'

Bates (1984) considered that teachers were increasingly drawn towards accepting a functional model of education, but in so doing, they were obliged to compromise their liberal educational values. She accounted for this in the context of legitimation and motivation problems. Given a situation in which no amount of qualifications could secure jobs for any young people, it was more difficult to persuade pupils of the value of lessons, and consequently, classroom control and teacher survival during lessons are more often at stake. Something has to be done to make the teacher's life easier. The development of a more vocational flavour in the school curriculum in part represented a concession to pupil definitions of what is relevant and in their interests (Bates, 1984, p.206). A vocational curriculum also attracts students to stay longer at school, and reclaims school-leavers who have not found a job, thus counterbalancing falling rolls, which by the eighties had already become another of teachers' anxieties, representing as it did the possibility of redundancy.

The attempt to strengthen the link between education and work took the form of many initiatives. One of these was the concept of *'alternance'*, a model launched in Europe by the European Community in the late 1970s and early 1980s, and which encouraged a mixture of education and work in a school and on a work site (see European Centre for the Development of Vocational Training, 1980 and 1983). Increasingly, transition education, enterprise education, apprenticeship forms of learning, and so on became attractive to policy makers as they attempted to manage the relationship between study and work (Zgorzalek-Koutcher,1985).

Transition education and the orientation for work

Most of the elements and trends associated with the 'new vocationalism' can be found in transition programmes, established in several education systems in order to facilitate the task of school-leavers as they went about trying to gain entry into a shrinking world of work. Transition programmes can be traced to the rise of unemployment, being specifically related to a context where young people increasingly became disadvantaged in labour markets. The declared aims for such programmes was to help young people gain and maintain motivation for learning, to achieve a better understanding of the world of work, to develop self-confidence, initiative and creativity, and to increase their ability to make informed and sensible educational and vocational decisions (see European Community, 1984). With the increase of youth unemployment, transition education established itself firmly within the school system, and from an add-on programme to give help to disadvantaged youth at the end of their compulsory schooling, it became a major curricular proj-

ect, whose vocational and utilitarian language gained a degree of popularity among students and parents alike.

The number of research projects and lengthy research reviews in a number of countries (Sturman, 1979; Anderson, 1981; Cole, 1981 in Australia; Ambrosius, 1983; Kerslake, 1984; Corban, 1985 in New Zealand; Clarke, 1980; Wilcox and Lavercombe, 1984 in the U.K.) are evidence of the increasing importance attributed to transition education during the seventies and eighties, in response to the demands of the 'new vocationalism'.

Organisational approaches to transition education

Transition education made an appearance in a number of ways in the secondary school curriculum. Some schools limited themselves to providing some generally applicable life-skills, which were infused in the curriculum through such subjects as Social Studies, Parentcraft and so on. Often, such programmes included a unit on coping with unemployment. In some cases, transition education took the form of a programme at the end of compulsory schooling. Such a programme could last for one school term to a whole academic year, with specialised transition teachers developing courses to suit the needs of the students participating. Great variety characterised the curriculum of these 'terminal' programmes, with emphasis generally being placed on vocational orientation or living skills. Work exploration normally took up a large proportion of the time of such programmes, a junior sort of apprenticeship to the world of work.

A third approach was 'alternation' between periods at school and periods in industry, similar to the German 'dual model' which attracted the attention of educational policy-makers world-wide. This 'alternance' was supposed to install a sensitivity to industrial needs as well as to encourage participation and cooperation between schools and industries in the community. A fourth approach to transition identified by IFAPLAN (European Community, 1984) in bringing together reports about transition provision in the European Community, was the attempt to make schools the scene for job creation programmes through the setting-up of cooperatives, often not based in schools. Such incentives required the help of industries, and an example of such a scheme is the SPIRAL experiment in Ireland (see Janbowicz and Rowlandson, 1981), where pupils between 11 and 16 years of age operate businesses set up as limited companies, with parents and businessmen in the community providing money, and produce goods for sale.

Transition education has been criticised for reinforcing the reproductive function of schooling in preparing students for a segmented labour market, as well as for non-existent jobs. Cole (1981), considering transition programmes in Australia, concluded that many of them were 'reactive' responses, with teachers and the education system generally acting in isolation from other important arenas of social and economic life. Dwyer et al. (1984) suggested that add-on transition programmes were a reflex response to the challenge of new problems, and continued the tradition of curriculum response to social change, namely the adding on of new programmes when new demands are placed on education systems. Schools therefore assuage their conscience because they have

done something, while the mainstream curriculum continues functioning unchanged.

In New Zealand, Shuker (1983) described transition programmes with reference to four images of schooling. Transition programmes inspired by a *technocratic image* of schooling fall in line with the state's major priority of fitting education more closely to the restructuring and development of the economy, and therefore involves the provision of future workers with sets of characteristics which will increase their probability of employment. Other transition programmes are inspired by an *existential image* of schooling and therefore stress the liberating opportunities offered by the economic crisis, providing leisure education as a way of living with unemployment. Such an approach has obvious affinities with proposals made by the 'rhetorical humanists' referred to earlier. A third ideological underpinning for such transition programmes relates to a *reproductive image* of schooling, where projects like work experience, vocational guidance and transition teaching serve to reproduce labour power, namely the stills, attitudes and knowledge necessary to being a productive worker.

Cole (1981), Kemmis et al. (1983) and Shuker (1983) among others, all identified a fourth type of transition programme, one organised around the *transformative and socially-critical image* of schooling. Such a perspective falls within the agenda of the 'critical educators' as outlined earlier. The agenda therefore changes from one of helping students 'cope' with unemployment and disadvantaged positions in the labour market to one where they are helped to gain an understanding of themselves and the complexities of their culture, and to respond to the demands of social

change. Messages are thus no longer organised around the imperative of teaching *for* work, but become more concerned with teaching *about* work. Within this image of schooling, transition programmes are politicised and become another potential site for transformation, because problems are located within schooling and the economic system rather than on the borders of both.

In this way, the orientation aspect of the link between education and work and the rise of what has been called 'the preparation for life curriculum' (Wilcox et al., 1984) could provide a space for the provision of 'really useful knowledge', especially if this is related to a critical understanding of society. This is the view promoted by the likes of Wilcox and Lavercombe (1984) in the U.K., or Wirth (1983) in the U.S.A., who argued that changing the schools to meet the requirements of industrial *democracy* would produce better workers and higher levels of academic achievement.

(d) Preparation

The most explicit traditional bond between education and work is that of promoting the acquisition of specific skills and knowledge which students will be able to apply in a direct way after entering employment. This function has occasionally gained favour with various educators throughout history. Thus, at the turn of the century, Sneddon tried to promote vocational education in the United States, only to meet Dewey's (1915) firm opposition:

> 'The kind of vocational education in which I m interested is not one which will 'adapt' workers to the existing industrial regime; I am not sufficiently in love with the regime for that. It seems to me that the business of all who would not be educational time-servers is to resist every move in this direction, and to strive for a kind of vocational education which will first alter the existing industrial system, and ultimately to transform it.'

Dewey (1916) was later to elaborate on this point and place it more firmly in a socio-political context:

> 'Any scheme for vocational education which takes its point of departure from the industrial regime that now exists is likely to assume and to perpetuate its divisions and weaknesses, and thus to become an instrument in accomplishing the feudal dogma of social predestination...To split the system, and give to others, less fortunately situated, an education conceived mainly as specific trade preparation, is to treat the schools as an agency for transferring the older division of labour and leisure, culture and service, mind and body, directed and directive class, into a society nominally democratic.'

Besides the ethical and democratic problems with vocational education as pointed out by Dewey, there are also pragmatic difficulties with this model of education. There is ample evidence to show that vocational preparation should be left to employers (who do a better job of it in a shorter time) and to other post-secondary institutions (Collins, 1977; Berg, 1970). Cathcart and Esland (1985, p.179) however noted that 'the

'irrelevance' of education for the lower-achieving 40% of school-leavers is often used to legitimate the strengthening of selection and the allocation of this band of young people of a more 'relevant' technical and vocationally-oriented curriculum.'

Bernstein (1971, p.58) moreover suggested that moves to include technical elements and everyday realities of pupils in the curriculum were often 'not simply for the transmission of educational knowledge, but for the purposes of social control of forms of deviancy, and that usually occurs with the 'less able' children whom the school has given up educating.'

Jamieson and Lightfoot (1982) reported that in the U.K., the exclusion of 'non-academic' students from a general education in favour of a more strictly vocational or utilitarian one was consistently opposed by trade unions on the ground that it would operate to the disadvantage of working-class children, who would be bound to be pressurised into forms of work which were more appropriate to their social station than to their innate aptitudes and abilities. Watts (1985, p.20) concluded from evidence presented by Grubb and Lazerson (1981) in the United States that the irony of vocational preparation programmes was that they tended to deprive their students of access to what in terms of status and incomes, must be regarded as the real vocational prizes.

(e) Education and national development

Despite the fact that human capital theory had been adopted and been found wanting by many countries, it is interesting to note that the sev-

enties and eighties saw the return of the economistic approach to education - this time under the guise of 'human resource development' - with several governments attempting to make education the scapegoat of and solution to - the crisis. Human capital theory relates closely to the technical-functional approach to credentialling discussed earlier and has its roots in classical economic theory. It basically argues that if education can provide 'enough' of the 'right' skills, then full employment will return and so too will, presumably, social stability. Italy and Sweden (OECD, 1985) who had adopted the model, report a 'diminution of the labour market value of qualifications.' In effect that meant that both countries had developed an angry and disaffected group of young adults who possessed high grade technical, vocational or academic qualifications, and who nevertheless remained unemployed.

Despite the widespread and long-standing belief that an increasing technological society requires a skilled populace, research in the seventies and eighties began to indicate that this belief is questionable (Braverman,1974; Littler, 1982). Rather, what was shown was that the increasing technocratisation of society had resulted in increased skill requirements for some and a decrease in skill for others (Hill, 1981; Gordon et al.,1982). Increased application of technology had in many cases reduced complex mental or physical skills to routine task requirements capable of being performed by most individuals without extensive technical training. This seemed to be as true in the so-called white-collar professions as it is in more typically blue-collar occupations (Johnson, 1982). Indeed, technology has increased the skill requirements for some, particularly those who plan the techniques of production.

Additionally, Levin and Rumberger (1983) pointed out that while some 'high-tech' jobs (such as those of systems analysts, computer programmers, data-processing machine mechanics, and others) are projected to grow between 74 and 148% by 1999, their absolute numbers are small, while increases in unskilled categories as janitors, nurse-aids, fast-food workers and so forth were expected to grow at unprecedented rates (as indeed they have). They concluded that more and more workers would be required by the nature of the economy to take jobs which do not make use of their education and skills.

Within this context, calls for the skilling of school-leavers for the economic revival of economies were considered to be misguided, despite the common-sense appeal of such views. In a British context, Gleeson (1983, p.2) unpacked the meaning behind the discourse which urged skilling:

> 'The push towards training reform may have little to do with equipping labour with specific technical skills to make it more employable, but perhaps more to do with establishing 'substitute criteria' (vocational preparation, work experience, further education and so forth) for controlling the aspirations of disaffected young people.'

Another way education was seen to contribute to the economic development of a country was through human resource ('manpower') planning. The 1986 issue of the *Bulletin of the International Bureau of Education* reviewed policies of education and employment over the preceding ten

years, and noted that manpower planning had found itself in great difficulties. Some of the factors cited are:

- the greater frequency and speed of change in the technology/employment area than in the education/training area
- the assumption that persons trained in a given occupation will seek that employment
- the unreasonable assumption of zero labour substitution
- the narrow focus on wage employment in the formal sector to the exclusion of all other forms of economic activity
- the focus on growth to the exclusion of equity and social demand
- the discrepancies between the *actual* rates of economic growth and the assumed ones upon which the manpower forecasts are based
- the neglect of occupational mobility
- the assumption that particular levels of economic development are reached through specific patterns of educational/occupational structures.

To these one could add the vulnerability of many nations to changes in the international market which play havoc with plans of vocational training initiated in response to projected manpower needs.

Conclusions

The overview of the major theoretical frameworks and empirical research connecting education to employment, as this was developed in the seventies and eighties, has, I would argue, some important lessons

for those of us considering the field on the threshold of the third millennium. It first of all reminds us that there are some fundamental issues that need to be considered carefully in any attempt to strengthen the link between formal schooling and the world of work. The seventies and eighties saw a resurgence of neo-Marxist discourse which pitted itself against the desire of some governments to make education serve the 'needs' of the economy. While post-Fordist studies would seem to suggest that at the compulsory education stage, the best 'vocational' education one can provide is a 'liberal' one, the perspectives developed three decades ago help us remain vigilant and to carefully interrogate the present day rhetoric. For today, as at the outset of the economic crisis, the question to ask remains: 'To what extent are present educational policies acceptable to us, in terms of our commitment to democratic values? In other words, to what extent do such policies promote and satisfy demands of social equity and a true education unfettered by a utilitarianism which teaches for the established order?'

The educational literature of the seventies and eighties, since it did not yet have to contend with the apparent demise of alternative social and economic arrangements to capitalism, could still consider the world that surrounded it with a relatively fresh and critical eye, in order to imagine a world as it could and should be. That kind of critical edge can be rather too easily laid aside in the present historical conjuncture, when any reference to different forms of social organisation is immediately labelled as hopelessly utopian. But while the following quotation from Bowles (1976, p.39) might appear to some to be outdated, there is in it an intellectual bite and challenge that is rather rare to find in contemporary educational discourse, lost as this is in either technicist concerns, or in the

verbiage and philosophical gyrations of (supposedly) post-modern analyses. Bowles then argued that:

> 'Educational reform movements have failed because they sought to eliminate inequalities without challenging the basic institution of capitalism. As long as jobs are defined in that some have power over many and others have power over none - as long as the social division of labour persists - educational inequalities will be built into society.'

This basic insight, if accepted, should remain the key guiding category as we consider present-day attempts to manage the transition from school to work, and as we go about our business as educators attempting to help students and young workers achieve an intellectual and practical understanding of economic, political and social issues, thus empowering them to address the critical social questions that mark our times.

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Chapter 2

APPRENTICESHIP IN ENGLAND: AN HISTORICAL PERSPECTIVE[1]

Richard Aldrich

Apprenticeship is one of those institutions, in common with the university and parliament, which has a history stretching back at least to medieval times. Such longevity immediately suggests a host of basic questions to the historian. Why has apprenticeship lasted so long? What basic human need or needs does it fulfil? Has it fulfilled the same function across the centuries or been subject to considerable changes? Has it, indeed, been a catch-all term to describe a variety of practices which have been, and remain, essentially different? These and other issues will be considered in this paper which is organized in four broad chronological periods. The first provides a basic identification of the key elements of apprenticeship in medieval and early modern England. The second is concerned with the impact upon apprenticeship of the first industrial revolution, and highlights the pupil-teacher apprenticeship scheme of the second half of the nineteenth century. The third period focuses upon the twentieth century; the fourth, upon the Modern Apprenticeships initiative begun in 1994. Finally, some conclusions are drawn. Such classification, with its emphases upon the last two centuries, is somewhat at variance with traditional divisions. As a recent article has rightly suggested:

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[1] I am most grateful to my colleagues, David Crook, Andy Green and Susan Williams for their comments on an earlier draft of this paper.

"When historians consider 'apprenticeship', they often generalize in terms of three extended periods. These may broadly be characterized as that of 'guild apprenticeship', let us say from about the twelfth century to 1563, with the state underpinning much practice; the period of statutory apprenticeship, from 1563 to 1814 (with guilds slowly attenuating); and finally a great diversity of forms which might be summarized as 'voluntary' apprenticeship, often agreements between employers and unions, from 1814 to the present day." (Snell 1996: 303)

Medieval and early modern

It would appear that the essential elements of apprenticeship in medieval England were consistent with those which existed in other European countries. Apprentices (who were usually male) were bound by indentures to a master for a term of years, commonly seven, and invariably between five and nine, while they were initiated into the theory and practice and other mysteries associated with a particular occupation. Parents (or other guardians) of the apprentice paid a premium and signed a contract of articles with the employer which specified the conditions of service. While premiums varied considerably, those for entry to prestigious occupations might be very high indeed. Apprentices were provided with food, clothing, shelter and instruction by the master, and in return worked for him during the term of their apprenticeships. The system, which was enforced both by custom and by law, was certainly flourishing by the fourteenth century and was applied to a range of occupations. These included both manual and professional pursuits.

Although the main emphasis, both historically and conceptually, has been upon the former, it is important to note here that many of the principles and practices of apprenticeship as applied to the university (with its master's degree), to medicine and to the law, were to continue into the modern period. In the England of the twentieth century the training of doctors and lawyers, and the status and roles of partially and newly qualified staff in these professions, have continued to exhibit apprenticeship characteristics.

Two pieces of legislation from the Elizabethan period, the Statute of Artificers of 1563 and the Poor Law Act of 1601, indicate the two main species of apprenticeship which had emerged by that time. On the one hand was the classic system inherited from the guilds of the medieval period, which indeed provided much of the administrative machinery for the act. The Statute of Artificers prescribed that written indentures were to be drawn up for each apprentice, and that no person should exercise a craft or trade until at least a seven year apprenticeship had been served and the age of 24 attained. Even entry to apprenticeship in certain occupations was to be denied to those who could not boast parents of the appropriate condition and status. This requirement was not necessarily as restrictive as might first appear, because in certain crafts the habit had grown up of apprenticeships being restricted to the sons or other relatives of masters. Such restrictions in respect of family membership, though enforced by custom rather than by law, continued in some occupations, for example those of dockers and printers, until the twentieth century. A ratio was also established between the numbers of apprentices and journeymen, for example each master with three apprentices was compelled to keep one journeyman. This stipulation was introduced both

to guard against the possibility of apprentices simply being used as cheap labour and to furnish some role models and guidance in addition to that provided by the master. Justices of the peace, who also had the authority to determine wages in many occupations, were required to ensure that the statute was being obeyed. These provisions of 1563 reflected the recognition by central government of the importance of apprenticeship and of the need to regulate it both in the general interest of social, economic and political stability, and in the particular interests of consumers, producers and the very apprentices themselves.

The 1563 Act, however, also contained other clauses which were to be extended in 1597 and finally consolidated in the Poor Law Act of 1601. These set out a different model - that of parish apprenticeship. Parish apprenticeship was designed to transfer immediate responsibility for illegitimate and orphaned children, and those of vagrants, paupers or criminals, from the parish and local justices to local employers and residents. Thus the Act of 1601 empowered 'Churchwardens and Overseers...by the assent of any Two Justices of the Peace...to bind any such children...to be Apprentices, where they shall see convenient.' (Quoted in Lane 1996: 3) When, from 1662, apprenticeship also afforded the right of settlement, it was sometimes in the interests of parish authorities to send their young charges as far away as possible.

In the early modern period, therefore, apprenticeship was widely used. But while skilled crafts and trades, for example those of cabinet makers and grocers, recruited almost entirely through indentures freely entered into by both parties, occupations of low status or danger, farm labourers,

brickmakers, chimney sweeps, menial household servants, were supplied from parish apprentices.

Industrial revolution

During the seventeenth and eighteenth centuries social and geographical mobility, population increases and the development of new occupations, made serious inroads into both the concept and the practice of apprenticeship. The details of eighteenth-century legislation have been well summarized by Lane who has shown how parliamentary statutes of 1709, 1747, 1757, 1766, 1768, 1780, 1788, 1792 and 1793 reflected the continuing regulatory concerns of successive governments (Lane 1996: 4-5). The purposes of this legislation ranged from the raising of governmental revenue by a tax on premiums, to combatting some of the more common abuses of the system, both by masters and by apprentices themselves.

The Act of 1563 was finally repealed in 1814, and in her seminal study Olive Dunlop (1912) saw this event as marking the end of the true period and nature of apprenticeship. It is difficult to determine precisely what was lost at this point, for apprenticeship continued both in name and in a variety of practices throughout the nineteenth and twentieth centuries. Five elements may be suggested: the loss of a continuity with the medieval tradition provided by the legislation of 1563; the abandonment of the mutually binding nature of the indentures; a diminution in the breadth of the master's responsibilities, which had formerly extended both to occupational instruction and moral supervision, as well as to board and

lodging in his own premises; an increase in the scale of operations which led to the withdrawal of the master from immediate supervision of the workshop and its trainees; an increase in the numbers of occupations for which little skill or training was required.

It is clear that the changes which took place in England at the turn of the eighteenth and nineteenth centuries, changes characterized by industrialization, urbanization and population explosion, were accompanied by considerable changes in apprenticeship. Nevertheless, the name and many of the original concepts and practices (albeit in modified context and form) survived into the new era. Traditional apprenticeships continued in many occupations and were added to and redefined in others. For example, Charles More has suggested that 'In the second half of the century, what I will call new-style apprenticeship was associated in particular with five growing industries: engineering, iron-shipbuilding, building, woodworking and printing.' (More 1980: 43) The complexity of the situation is shown by the fact that in some trades apprenticeships were still necessary for some sectors of the operation, for example to ensure the production of good quality furniture and clothing, while goods for the mass market might be produced by unskilled labour by means of modern machinery.

The fate of parish, pauper or factory apprentices under the impact of the industrial revolution excited considerable, though belated, contemporary attention. The factories, mills, mines and workshops of early nineteenth-century England had an apparently insatiable appetite for child labour. Accordingly, cartloads of children were despatched from various parts of England to the industrial areas. There they were maintained, as

apprentices had always been - fed, clothed and housed - but frequently worked very hard indeed and without either training or hope of advancement. Three features of this type of apprenticeship which proliferated during the early years of the industrial revolution may be noted. First, children were sent to industrial occupations by parishes whose principal motive was to be rid of them so that they would no longer be a charge on the rates. Second, although a premium might be paid by the parish, on occasion apprentices were virtually bought by employers who had no interest in teaching them skills and mastery of a trade, but simply wanted to use them as cheap labour. Third, there was no intention that these apprentices would become masters themselves. When their apprenticeships were ended, the young people, far from being equipped to find a job, found themselves supplanted by the next batch of juveniles.

In 1802 the seriousness of this situation was recognized when an 'Act for the Preservation of the Health and Morals of Apprentices and Others employed in Cotton and other Mills and Cotton and other Factories' was placed on the Statute Book. This legislation, which applied to cotton and wool mills with three or more apprentices stated that:

> "Every apprentice shall be instructed in some part of every working day for the first four years at least of his or her apprenticeship...in the usual hours of work in reading, writing and arithmetic or either of them according to the age and abilities of the apprentice, by some discreet and proper person to be provided and paid for by the master or mistress of such apprentice..." (Quoted in Sanderson 1967: 267)

Three elements in this legislation may be noted here. First, it placed the responsibility for instruction upon the mill owner; second, the instruction was to be of a general kind, rather than specifically devoted to the occupation, third, these provisions were rendered largely ineffective by the absence of any proper inspectorate. Not until 1833 were the first government factory inspectors appointed; not until the 1870s was legislation extended to cover all occupations; not until 1880 was compulsory schooling introduced in England. Compulsory schooling, indeed, was to be another crucial factor in redefining the nature of apprenticeship.

Nevertheless, one important new link between the worlds of schooling and apprenticeship was created on the initiative of central government. This was the pupil-teacher system begun in 1846, under which boys and girls aged 13 were bound to a five year apprenticeship. These apprentices received a basic payment of some £10 per year, rising by increments of £2.10 shillings per year to a maximum of £20. During their five years of apprenticeship pupil teachers taught in schools, and received extra instruction from the master or mistress of the school at the end of the school day. On completion of their apprenticeships pupil teachers would either leave teaching altogether, proceed to a teaching post in a school, or go on to a training college in order to acquire a teaching certificate.

In the second half of the nineteenth century pupil teachers, who were annually inspected by one of Her Majesty's Inspectors (HMI), were essential to the staffing of elementary schools in England. At times, indeed, they constituted about a quarter of the whole teaching force. In

the last twenty years of the nineteenth century the system underwent significant modification as the larger school boards established centres in which pupil teachers could receive structured education and training in groups rather than at the hands of individual headteachers in separate schools. These pupil-teacher centres proved to be very effective means of instruction, as measured by the performance of their students in the highly competitive Queen's scholarship examinations.

From the beginning of the twentieth century, however, the numbers of pupil teachers rapidly declined. Several reasons may be adduced for this change. First, there was a growing belief that the education of a large percentage of the children of the country should not be directed by those who were little more than children themselves. Second, since from 1902 there were maintained secondary grammar schools which offered free secondary education to able pupils, there was no need for the pupil-teacher apprenticeship to serve as a substitute for secondary schooling. Third, the decline in the birth rate reduced the numerical pressures on schools. Fourth, the development of teachers' unions and professional associations from 1870 and the establishment of Local Education Authorities (LEAs) as employers from 1902, helped to make teaching a more stable career and one in which increasing numbers of people, both men and women, would be prepared to spend their whole lives.

Technical education provided a further extension of, and challenge to, apprenticeship. Pupil teacher centres indicated that some elements in the apprenticeship of prospective teachers could be more effectively supplied outside the schools themselves. Similarly it became apparent that some elements, for example basic scientific and technical knowledge, necessary

for other forms of apprenticeship, could be supplied more efficiently in the classroom than in the workplace. In England, however, provision of technical education was and remained poor. Writing of the situation in the second half of the nineteenth century, Andy Green drew attention to the failures of English apprentices, and showed how a commentator such as Silvanus Thompson, in his study *The Apprentice Schools in France* (1878), contrasted the unimaginative drudgery of an English apprenticeship with the combination of theoretical and practical training provided in the French trade schools. As Green has rightly maintained, 'apprenticeship was often of dubious efficacy and rarely sought to train beyond the level of basic practical skills'. (Green 1994: 69)

Explanations of this failure either to adapt the old apprenticeship system or to replace it with something superior, have been many and various. Some have blamed the general anti-industrial ethos exemplified in the rural, classical ethos of the landed elites and many of the intelligentsia. Others have placed the responsibility at the door of those industrial and commercial entrepreneurs whose successes in the first industrial revolution were secured without any scientific and technical training themselves or recourse to a highly skilled workforce. Others, again, would emphasize the reluctance of central governments to intervene in this sphere, for fear of upsetting the free operation of the market.

Twentieth century

The last twenty years of the nineteenth century have been identified, in relative terms, as a 'golden age' for vocational education in England, as

shown by the development of institutes and polytechnics, and by the authorization of local authority expenditure on technical studies. In a volume entitled *Skill and the English Working Class 1870-1914* (1980) Charles More calculated that in any single year in the early twentieth century there were some 350-400,000 apprentices in the United Kingdom (More 1980: 64). Apprenticeship still dominated recruitment to engineering fitting, and to many areas of building, shipbuilding and printing. In 1906 the largest groups of apprentices were in building (100,200) and engineering (94,100), and More suggests that in this year 21 per cent of all working males between the ages of 15 and 19 were serving apprenticeships (More 1980: 99, 103).

Nevertheless, it was generally perceived, and the perception was heightened during two world wars, that in comparison with many of their European counterparts, British workers, including those who had undergone apprenticeships, were still less competent both in general theoretical, and in more specifically practical, elements of their work. Although a national system of awards, the ordinary and higher national certificates and diplomas, backed both by government and professional bodies, was introduced in the 1920s, a part-time, evening approach still prevailed in the technical field. The most important point to note is that the same criticisms of, and explanations for, the failure of apprenticeship in England were being repeated in the second half of the twentieth century. As in the later nineteenth century, so in the twentieth, product standards were frequently inferior in comparison to those of goods produced in other countries. Some luxury items apart, the label 'Made in Britain' began to acquire a negative connotation.

In 1948 a Central Youth Employment Executive was created under the terms of the Employment and Training Act of that year, while in 1958 an Industrial Training Council was established by the British Employers' Confederation, the Trades Union Congress and the boards of the nationalised industries. Apprenticeship places were increased by some 25 per cent and a number of useful training manuals produced (Beveridge 1963), but vast areas of commercial and administrative work had no apprenticeship schemes. Indeed, a survey carried out by the Acton Society Trust in the 1950s found that fewer that one in five managers had any professional qualification at all (Harman 1958: 8). Some notable attempts were made to improve upon this situation. For example, Wednesbury College pioneered commercial apprenticeship programmes from 1946, while a Commercial Apprenticeship Scheme of the Chambers of Commerce provided a five year course of vocational education combined with practical training (Harman 1958: 46; Tonkinson 1962: 18-25, 49-54). Successive governments encouraged apprenticeship schemes by means of exhortations and grants, but in her classic study, *Apprenticeship in Europe: the Lesson for Britain*, published in 1963, Gertrude Williams, Professor of Social Economics in the University of London, was still able to write that 'there exists no legislation whatever governing industrial training. The apprenticeship schemes in operation derive from collective agreements between employers' organisations and trade unions and have no legal sanction or supervision.' (Williams 1963: 3-4)

Williams surveyed apprenticeship and other forms of vocational education in Belgium, France, Italy, the Netherlands, Sweden, Switzerland and West Germany. Though critical of the situation in Belgium, she concluded that there were important lessons to be learned from the other

six countries. Her recommendations for reform of the British system included the following elements:

> "The period of apprenticeship should be reduced and varied according to the skill required...The present rigid distinction between apprenticeship for five years and all other forms of training for industrial work has no logical, educational or technical justification..."

> "Theoretical knowledge must be accepted as an essential and integral part of the training of a skilled worker...The worker must understand thoroughly what he is doing and why he is doing it that way so that he can adapt his knowledge to new needs without difficulty..."

> "Instructors, whether of the practical job in the workshop or of the theoretical foundation, must be taught how to teach..."

> "Provision must be made to ensure that all those who need skilled workers share in the cost of training them..."

> "More flexibility is needed in the labour force...Restrictive lines of demarcation between related trades must be entirely removed...There should be more than one avenue by which skilled status is reached..."

> "The State must recognise its responsibility for the training of young people. In the academic field this has already been accepted...There

is no reason why there should not be a similar recognition of responsibility towards those who get their preparation for adult life in a different milieu."(Williams 1963: 180-3)

The Industrial Training Act of 1964 indicated a willingness to tackle some of these problems, and by 1970 under the provisions of this legislation 29 boards had been established to oversee the industrial training and education of some 16 million employees. Different apprenticeship patterns emerged for different occupations. For example, in engineering the general pattern was of a one-year general training followed by specialist studies. Post Office engineers, however, underwent a three-year apprenticeship which had two years of general training followed by one of a specialist nature. Apprentices in motor mechanics eschewed general studies and worked towards a specific national craftsman's certificate. While it was argued that such diversity was a useful means of tailoring apprenticeships to the needs of specific occupations, many other traditional weaknesses, including those of age entry restrictions and time-serving, continued. Employers, such as the Post Office, complained that their apprentices, once trained, would secure jobs in private firms whose ability to pay higher wages depended in part upon their unwillingness to provide apprenticeships themselves. Criticisms of the 1964 Act mounted in the 1970s (Venables 1974: 128-38), while comparative studies also continued to reinforce the view that the existing apprenticeship and other training arrangements were not working well. In 1975, some 16,000 mechanical and engineering qualifications were awarded at craft level in Britain, as opposed to 51,000 in France and 78,000 in West Germany. In 1987 the respective figures were 12,000, 68,000 and 89,000 (Steedman and Green 1993: 44).

New initiatives of the 1980s included those promoted by the Manpower Services Commission (MSC), a body established in 1973 but used by the Conservative governments of Margaret Thatcher to ensure that there should be no unemployed youngsters between the ages of 16 and 18. The basic principle of this agency was that all such young people who were neither in education nor employment 'should have the opportunity of training, or participation in a job creation programme, or work experience' (Ainley and Corney 1990: 40). The Youth Opportunities Programme (YOP) was the first such scheme and in 1983 was replaced by the more ambitious Youth Training Scheme (YTS). This guaranteed a year's work experience, off-the-job training and a weekly allowance of £25 to all unemployed 16 and 17 year old school leavers. In 1986 a two-year programme was introduced, with greater emphasis upon educational achievement in vocational, core and personal areas.

YOP and YTS were national, centrally directed forms of modern apprenticeship which did much to combat juvenile unemployment in the short term. But the problems of these schemes were two fold. The first was that some employers used YOP and YTS trainees as a form of cheap labour, in place of adult workers; the second that the great majority of participants in YOP and YTS ended their one or two years of training with no recognized or marketable qualifications. In some senses these schemes were the twentieth-century equivalents of parish apprenticeship. In the second half of the 1980s an appreciation of their deficiencies led to a series of radical changes in organization and administration. The central body, the MSC, was replaced by a Training Agency (TA), while employer-led Training and Enterprise Councils (TECs) were established at the local

level. In 1990 responsibility for the former YTS, now simply known as Youth Training (YT) was transferred to these bodies.

The problem of vocational qualifications was tackled by the establishment in 1986 of a National Council for Vocational Qualifications (NCVQ). Five levels of vocational qualifications were established, from basic to postgraduate. While some of these were specific to particular types of work, others, the General National Vocational Qualifications (GNVQs), covered broader areas of occupation. An intermediate GNVQ is considered to be the equivalent of four General Certificate of Secondary Education (GCSE) passes at grades A to C, while an advanced GNVQ is rated the same as two General Certificate of Education Advanced (GCE A) levels. In the summer of 1996, nine out of ten applicants for university places who held GNVQ qualifications were accepted. These developments, and the reactions of students who have engaged in them, have been very well summarised in David Crook's chapter on 'British VET programmes and student experiences, 1975-95' (Crook 1995: 220-32).

Modern Apprenticeships

By the early 1990s both the terminology and practice of apprenticeship in England appeared to be largely a thing of the past, and confined to a single area of industry. One recent international survey, *Apprenticeship: Which Way Forward?*, indeed, declared that:

> "In Anglo-Saxon countries, apprenticeship of young people in companies has survived mainly in the building trade. In these

> countries education policies during the 1960s and 1970s concentrated on developments in general and academic education, while large numbers of young people continued to enter the labour market without recognised qualifications." (OECD 1994: 9)

The same survey, however, also concluded that in such countries no satisfactory substitute for apprenticeship had been produced. It was generally critical of efforts to develop partnership between employers and schools, commenting that 'due to the marked decentralisation, the absence - or weakness - of collective organisation by employers and relatively low commitment of unions...these efforts remain more isolated and less "systematic" than those in continental Europe.' (OECD 1994: 11)

The Modern Apprenticeship initiative was announced by the Chancellor of the Exchequer in the Budget of November 1993. Modern Apprenticeships are industry-designed frameworks offering training in technician, craft and supervisory skills at least to NVQ 3 (equivalent to two GCE A levels) with progression to NVQ 4 (equivalent to a first degree). The original plans were drawn up by a consortium consisting of government, Training and Enterprise Councils (TECs) and Industry Training Organizations (ITOs).

Modern Apprenticeship training agreements are made between young people aged 16 and 17 and an employer. Although an agreement is signed which guarantees the skills to be sought and the training to be provided, this contract does not include any ultimate guarantee of employment. Fourteen sectors of industry and commerce were chosen as prototypes and introduced their Modern Apprenticeships in September 1994. By the

end of 1995 more than 50 apprenticeship frameworks had been approved, ranging from accountancy through childcare, furniture manufacture, the motor industry, sports and recreation, travel services to wool textiles. Unlike YOP and YTS, the purpose of Modern Apprenticeships was not so much social - keeping young people off the streets and out of the real labour market - as seeking to provide a better qualified workforce. Indeed, the government laid the principal responsibility for implementing this new initiative upon employers themselves.

On the choice of the title 'Modern Apprenticeships' Valerie Bayliss, Director of the Youth and Education Policy Division at the Department of Employment, reported that:

> "Our market research showed that the word apprenticeship evoked both positive and negative associations from employers and parents alike."

> "...the traditional apprenticeship tended to be in male-dominated, blue-collar manufacturing industry. It was based on time-serving and it often carried the message that it would give you a 'job for life' so that you need never learn anything again. All of those features were the opposite of what we had in mind."

> "We discovered that 'apprenticeship' also had some positive associations including, most notably, the idea of quality training, much of it work-based but also off-the-job, conducted over a period of time with dedicated employers. All of that is absolutely right for the Modern Apprenticeship. So it was decided to use

'apprenticeship' in the title because it means high standards and there are a lot of people around, especially parents, who respect that legacy. But remember, it is a Modern Apprenticeship - so there are a number of other features as well." (*Insight* 1994b: 7)

In 1994 a system of Accelerated Modern Apprenticeships was announced for 18 and 19 year old school and college leavers. The purpose of the accelerated scheme was to enable these older students to complete their apprenticeships and attain qualifications in a significantly shorter time. There was, however, no single required period of time over which either a basic or an accelerated apprenticeship scheme should run. Official statements advised that 'Young people will achieve their NVQ in the shortest yet most realistic or practicable timescale'. Nevertheless, the primary target group for Modern Apprenticeships remains those aged between 16 and 18. Although Modern Apprenticeships and Accelerated Modern Apprenticeships became nationally available in September 1995, the accelerated route attracted few participants and was merged with the normal route in February 1996. By the end of 1996 some 40,000 young people had begun Modern Apprenticeships. Although, during the prototype phase, only one in eight apprentices was female, by 1996 this had become one in four. Over 50 per cent of entrants to Modern Apprenticeships had achieved five or more GCSE passes at grade C or better. The government's target was for some 150,000 young people to be engaged in Modern Apprenticeships at any one time, with about 40,000 of these qualifying to NVQ level 3 or above in any one year.

In some ways Modern Apprenticeships represent a significant advance over previous initiatives such as YOP or YTS. The most important change

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is that Modern Apprenticeships are tied in to the new national system of vocational qualifications. A second benefit has been that in developing prototype Modern Apprenticeships, ITOs and TECs have been brought into closer partnership. The role of ITOs has been to identify the specific skill and training needs of particular industries. Some TECs, on the other hand, have contributed their knowledge and experience of what is available in terms of training provision in a particular area and have guaranteed the commitments made by employers to their apprentices. Changes in employers' attitudes are demonstrated by the fact that almost two thirds of those involved with Modern Apprenticeships had not been providing training to NVQ level 3 a year before, and that 90 per cent of apprentices now have employed status.

Some problems, however, are also apparent. The first was the failure of the accelerated scheme. Others include a difficulty in securing the participation of smaller firms, and a more general reluctance on the part of all firms in the general service sector, both large and small, to become involved. The term and concept of apprenticeship is still strongly identified in the minds of public, employers, and potential apprentices themselves, with the notion of craft apprenticeship - with the making or servicing of durables such as domestic appliances or cars. A further problem is apparent in respect of the status of NVQs and GNVQs. GCE A levels are still considered to provide a 'gold standard' to which NVQs and GNVQs may only aspire. The standards of British vocational qualifications have also been compared unfavourably with those in other European Union countries. Even so, NVQ completion rates are only 46 per cent. By 1996 only four per cent of 21 year olds had achieved NVQ level 3 through a work based route (Kinnock 1996: 44-5). A further issue remains

that of the qualifications of employers. In 1990 only 30 per cent of Britain's top managers were graduates, as compared with 62 per cent in France and West Germany and 85 per cent in Japan and the United States. (Randlesome et al 1990: 202)

Conclusion

Seven points may be made in conclusion.

The first, in answer to those questions raised in the opening paragraph, is that apprenticeship has survived in some form or forms across the centuries because it was originally composed of many elements which lay at the centre of human existence. Changes across the centuries have led to a concentration upon some of those original elements to the neglect of others. Apprenticeship as it existed as an ideal (though not always as a reality) from the twelfth to the seventeenth centuries was a most substantial phenomenon indeed, which encompassed social, occupational, educational, religious, familial, group and legal dimensions. It was a central core, both formal and informal, which impinged in a variety of ways upon individuals - males and females, young and old alike - and upon communities large and small. Centrality and variety were exemplified by the parish apprentices, whose lives were lived under similar but more stringent structures to those experienced by their more fortunate contemporaries. Informal apprenticeships seem to have operated particularly in respect of girls, for example in the case of handywomen. Informal apprenticeship in this area was ended by the Midwives Act of 1936 which restricted the right to deliver babies to

qualified midwives. Even less formal and more secretive were the apprenticeships of those who trained to be abortionists.

The early years of the nineteenth century saw the legislation of 1563 finally overturned, the replacement or redesignation of many traditional occupations, and a new and even more stringent set of structures within which many parish or factory apprentices were located. Such legal and economic changes, however, were accompanied by social changes, including changes in traditional arrangements for social welfare which, in the long run, were to prove equally damaging to the traditional elements of apprenticeship. The relationship between apprenticeship and the right of settlement, that is to say the right to receive welfare at the hands of the parish, was particularly important in the period between 1662 and the introduction of the new poor law in 1834. Discussion of this topic has often focused upon the desire of parish authorities to offload their potential claimants (the parish apprentices) upon another area. But equally important was the positive side of that relationship. As Snell has argued:

> "A parish... operated in the security that time expended in training young people within its parochial boundaries was likely to be of future benefit to itself. The close dependency between apprenticeship, settlement, employment, poor relief, ratepaying, access to local raw materials and means of production guaranteed this." (Snell 1996: 311)

A third point concerns a relatively neglected cause of the decline of apprenticeship in the nineteenth and twentieth centuries apprenticeship -

that of a fundamental change in the nature and location of education. The integrated nature of education as expressed through apprenticeship, whereby the master was responsible for the total well-being of the apprentice's health, morals, religious observance, literacy, occupational skills, etc, was replaced by a division of labour. The nineteenth century witnessed industrialization, urbanization and population explosion, but it also saw the decline of the educative family and the rise of the schooled society. Education, itself, was subjected to a division of labour, so that it became accepted that some skills would be learned at home, others at school, and others again in employment. Considerable benefits accrued from these developments, and universal schooling provided some guarantees against the evils of widespread ignorance and premature employment. In contrast apprenticeship, linked through settlement to the notion of small self-sufficient enclaves and the maintenance of the social, economic and political status quo, a system which required young people to reside in a master's household, and in that further enclosed environment to acquire all manner of skills, might well appear anachronistic and outdated. Not surprisingly those arch advocates of national and social efficiency, Sidney and Beatrice Webb, opposed it in the strongest terms, arguing in 1919 that 'Undemocratic in its scope, unscientific in its educational methods, and fundamentally unsound in its financial aspects, the apprenticeship system, in spite of all the practical arguments in its favour, is not likely to be deliberately revived by a modern democracy.' (Quoted in Snell 1996: 318)

Whereas the all-embracing nature of apprenticeship had its disadvantages, the major current problem in respect of education and employment in England appears to be that of fragmentation, coupled with

poor standards of provision and performance. Evidence on this point is readily available. Modern Apprenticeships may represent a significant advance upon YOP and YTS, yet such a development is both long overdue and must be located within European and global perspectives. There are some seven million people in the UK without any qualifications at all. The UK ranks 24th in the World Economic Forum league of workforce skills, while the overall performance of its education system is placed only 35th out of 48 countries. (Kinnock, 1996, 15) The 1994 World Competitiveness Report on the availability of skilled labour put the UK only 18th out of 23 countries, while the most recent IMF Competitiveness Report placed the UK 19th out of 22 countries for in-company training. (Kinnock, 1996, 25) In consequence, although ambitious targets have been set to ensure that by the year 2000 60 per cent of 21 year olds gain at least 2 A levels or their vocational equivalents, it has to be acknowledged both that such targets may be unattainable within this space of time, and that France, Germany and Japan have already surpassed them.

The causes of such low standards of performance are many and complex, and these figures themselves, which are quoted from one side of the political spectrum, must be balanced by other perceptions that unemployment rates and economic prospects are better in the United Kingdom than in many other countries. Nevertheless, it is not difficult to point to unco-ordinated and unfulfilled government policies in the areas of apprenticeship and broader vocational training. Indeed the reluctance of central governments to intervene in these areas, as opposed to frequent interventions in respect of mainstream schooling, is most noticeable. After 1945 there was an acute failure either to develop technical and vocational schools (the third element in a supposedly tripartite system) or to

implement radical changes in respect of apprenticeship of the type which took place in West Germany. Even those clauses in the 1944 Education Act which required the establishment of county colleges and the implementation of compulsory continuation education to 18, were never put into effect. In consequence, while some major employers managed to continue, create or develop their own apprenticeship schemes, as in the aeronautical and motor industries, in other areas sustained provision at the craft level was, and remained poor.

Sixth, one of the major themes of this paper has been that apprenticeship, though currently principally conceived as employment training for a particular range of occupations, has embraced many dimensions and appeared in many forms. The future of apprenticeship may well be determined not only by specific initiatives such as the Modern Apprenticeship scheme, but also by broader changes within the fields of education, employment and society at large, of which two may be noted here. The first is that in 1995 the two separate Departments of Education and Employment were merged into a single Department for Education and Employment. It is certainly too early yet to determine what effect this may have, but statements as to the aims and objectives of education have been recast in competitive and employment terms, and attempts made to secure a greater coherence between academic and vocational routes and qualifications, particularly in the 16-19 age range. The second is that the massive change in higher education participation rates over the last ten years, from some 12 per cent to more than 30 per cent, may mean that in future learning and qualifications will occupy a more central place in all elements in British life, including the industrial and commercial worlds, than hitherto.

Finally, the potential of apprenticeship to reach and inspire across the ages must be acknowledged. In a speech to a conference entitled 'Modern Apprenticeships in Action', held in London in April 1994, Valerie Bayliss stated that:

> "In Penzance in 1459 an apprenticeship was reckoned to last for eight years. We have made a great deal of progress since then, and time-serving will not be an element in Modern Apprenticeships. But, to aim (in the words of the fifteenth century) to 'teach, train and inform' strikes me as not a bad watchword for what we are now trying to do in not a twentieth-century but, I hope, a twenty-first century way." (*Insight* 1994a: 13)

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Chapter 3

THE APPRENTICESHIP CONUNDRUM IN NORWEGIAN VOCATIONAL EDUCATION

Liv Mjelde

Introduction

One of the problematics at the core of the new reforms in upper secondary education in Norway in the 1990s is the ongoing question of apprenticeship. During the 1960s many regarded apprenticeship as a relic of history. Leading politicians in the Social Democratic Party called it an exploitative system, but nonetheless, it has persisted, and faces today a new destiny.

The swansong sung for the apprenticeship system in the 1960s was related to educational restructuring in general, and to the belief that instruction was most efficient when carried out by the central school system. The Royal Commission on school reforms in upper secondary education (1965) proposed that all vocational education should occur within the school system; students in crafts and industry be awarded craft certificates in school, prior to their contact with working life (Kokkersvold og Mjelde 1982:99).

The idea of equality through education was also an explicit goal of the new legislation on schools instigated by the Norwegian Labour Party.[1] Integration of different schools under the same law was part of a policy to achieve this. A new law was passed in 1976 which integrated the traditional gymnasiums (the academic field) and the vocational schools, into one comprehensive school (age 16-19). The direct influence of labour and capital over vocational education through boards for every trade in the schools, was eliminated.

The impact of social and cultural conditions on economic growth had become part of the educational debate in Norway in the early 1950s. A few years later it also arose as a strong argument, coinciding with the discovery, by economists of the growth-factor related to educational investment; this gave a scientific basis for the optimistic attitude toward education of the time (Sakslind 1985). John Kenneth Galbraith (1968) contributed significantly to the debate when he argued that capitalism, by so strongly tying itself to technology, research and development, had made itself profoundly dependent on highly skilled labour, and that education was the source of that part of production industrial advances depended upon.

However, with the economic stagnation that set in during the mid-1970s, questions arose about the political aims of the new school law. While politicians in the 1970s said that the school should be rewarding in itself without regard for working life, in the 1980s, the debate centred on the relationship between education and work. The Social Democratic Minister

[1] The idea "Equality through education" I have discussed in other parts of my works, but they are not central to my arguments in this paper.(Mjelde 1993, 1996, see also Livingstone 1987)

of Education said in 1980 that the relationship between education and work will be the most important theme in the educational debate in the 1980s (Aftenposten 3.9.1980); the subsequent Minister of Education from the Conservative Party maintained that the strengthening of the apprenticeship system was an excellent pedagogical device (Håndverk & Industri No:4, 1983).

Apart from this policy debate, the apprenticeship system, depending on the ebbs and flows on the manual labour market, has lived a life of its own and has fulfilled a basic need among young members of the working class who continued to seek vocational training within the crafts and industries during the past twenty years (Mjelde 1993). Despite the old-fashioned and exploitative sides of apprenticeship and its inefficiencies, many young people continue to prefer to learn in production, on the job. This paper explores this development and its inherent contradictions. It is based on my empirical research into the everyday life of vocational school students and apprentices over the past decades. In the "Apprenticeship Project 1982-84" I interviewed 1,617 apprentices in five cities in Norway and I acted as a participant observer in two apprenticeship-settings.

The Contradictory Apprenticeship

The transition from school to the world of work has often been regarded, in traditional research conducted in the western industrialized world as a shifting from a protected, gentle world of teenage indulgence to a tough, competition-oriented world, a difficult time for young people (Gaskell and

Lazerson 1981). The participants in our "Apprentice Project 1982-1984" expressed a very different opinion about this transition.

First and foremost, the apprentices felt privileged to have obtained apprenticeships. Competition is stiff and places are scarce. In the mechanical engineering plant where I participated with seventeen apprentices there had been one- hundred thirty-seven applications for the seventeen available places. Three of the accepted apprentices came from the local primary school which had been co-operating extensively with the plant. All three had been employed in the plant while in the eight or ninth grade in school. It has been an extensive practice in the upper grades of primary school to "place out" in working life pupils who do not adjust to the school system. All of the seventeen apprentices preferred training in the workplace over going to school. As one of them explained:

> "It's much better the way it is here; you have a secure job, you make money and at the same time you're useful. The atmosphere in the classroom here and in the plant is good; the teachers are all right."

This apprentice felt secure. In contrast to a school situation, he was assured his job and paid for his efforts. He emphasized the atmosphere in the plant in relationship to classmates, workmates and teachers.

All the ten apprentices in the graphics class, where I did participant observation preferred apprenticeship to school. As two of them expressed it:

"Because this is an excellent way to learn a trade. You learn more by working than by sitting on a school bench fiddling with theory."

"A business can give us more timely training - it can acquire new and modern equipment sooner than schools. You have no wages when you go to school full time; many who start apprenticeship are sick and tired of school."

The first answer describes the contradiction between practice and theory, the difference between working in a business and learning theory in school (Mjelde 1987,1990, 1993, 1995). The apprentice did not seem to find any connection between what he was learning while working in the workplace and the practical/theoretical training he received in apprenticeship school. The second answer touches on an important problem in vocational school education. The forces of production are constantly changing and in the last twenty years the technological developments have led to profound changes in the production process. These changes directly influence vocational training. It becomes necessary to invest in new, expensive machinery but it is not always possible to keep up with some of the radical changes that take place in certain industries. This has been particularly true in the printing industry, where these students were apprentices. During the last decade, lead typesetting has been superseded by computerization. These changes have fundamentally changed the labour processes as well as the content of the training of the work force (Mjelde 1993).

The contradictions between learning in school and learning in the world of work are mentioned by the second apprentice, who commented on the fact that many young people are generally tired of school and start apprenticeship for that reason.

Table 8. Would you prefer full training in school rather than apprenticeship? Numbers and percentages.

	N	%
Yes	100	6
No	1,438	89
Not answered	79	5
Total	1,617	100

The table shows an overwhelming number of apprentices preferring apprenticeship to school. Only 100 of them would have preferred full training in vocational subjects in upper secondary school.

1,453 of the apprentices answered this question in an essay category as well. Among those who preferred apprenticeship, the reasons varied; from being tired of school, liking to earn money, liking the atmosphere at work, to a combination of these factors.

The 100 apprentices who preferred school were those who felt exploited as apprentices, who did not feel they were receiving training in their field and who thought the atmosphere at work was poor.

Most of the apprentices were satisfied to have been accepted as apprentices. Satisfaction about a situation is generally expressed as

opposed to something unsatisfactory. Most of the apprentices stated that they preferred being in apprenticeship to being in school, but this did not mean that they were unaware of being exploited. Being an apprentice often means being in a situation of material exploitation.

The complex and contradictory experience of being an apprentice was clearly illustrated in the answers to the essay questions where the apprentices described their situation as one of subjugation and exploitation. What are the alternatives?

One of the aspects of apprenticeship is the timespan. Apprenticeship carries a time-limit and is experienced as a period of transition. The following words of a hairdressing apprentice point out that great deal can be tolerated if there is an end in sight:

> "It may be a bit difficult at first, but everything gets better after a while. I know that if I really apply myself, I'll get my full education. But there is a down side to being an apprentice. I work more hours than I'm supposed to per week, I am not given time off when I ask for it, I can rarely sit down and relax, but it's going all right, after all."

The amount of time spent in apprenticeship varies with each field and with time. At the beginning of this century, mechanics spent five years as apprentices. In the 1970s' and 1980s', the average time spent in apprenticeship was three to four years (in a few trades, five) with a possible deduction for time spent in basic and advanced courses work in vocational schools (see above:23). Knowing that the apprenticeship

contract will last for a maximum of three or four years makes it possible to accept unreasonable demands and to endure seemingly exploitative conditions. Apprentices tend to adopt the attitude that others have done this before them and others will follow, that it is part of the natural order of things, that this is the way things have always been and always will be, that you have to take the good with the bad. As another hairdressing apprentice commented:

> "I have a good master, but I have not had a day off except for vacation time. I have minimum wage, never any specific time for meals. The working quarters are poor, they haven't been renovated for fifteen years, an important factor in a beauty parlor. But as I already said, I am learning the trade in any case."

This is a good description of the contradictory apprenticeship. The apprentice liked the master and felt that she was learning a lot but that the physical conditions were tough and unsatisfactory. In spite of not having much free time, she expressed satisfaction with learning a trade, the most important in an otherwise difficult situation. And finally, the apprentices in crafts is also bound to the existing order by their simple interest in becoming masters themselves (see also Marx & Engels 1985:70).[2]

To be in an apprenticeship situation has many aspects, as the apprentices point out in their comments. Personal closeness between the master and the apprentice in small craft businesses might be a problem. The

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[2]Ephraim Mizruhi (1983:102-127) has an interesting historical analysis of the functioning of apprenticeship as being the first major effort to use statutes to legitimate the incarceration of formally nondeviant persons in society.

conditions under which the apprentices work might be strenuous (see also Berner 1989:59). But one aspect most apprentices stress in their comments is the question of earning while learning.

The importance of earning while learning

Apprentices think that the ability to earn an income while in training makes apprenticeship much more attractive than school. A sausage maker stated that he preferred to be an apprentice because:

> "I had to earn money and it is too expensive to be in school for such a long period of time."

However, in a study of school and work in a community in Ontario, Hall and Carlton (1977:33) argue that students and young workers do not treat their work as very important and that they go through the motions only because it provides them with a pay cheque.

> "Over the past two decades, consumption and the good life have taken precedence over hard work and thrift, continuing high expectations of income and leisure now accompany work commitments which are declining."

This continues the well-known thesis of Goldthorpe (1964) who argued that workers have become interested solely in the amount of money they can earn, not in the intrinsic satisfaction of their work. The data from the apprenticeship project in Norway contradicts such conclusions. Money is

mentioned as an important factor, but money is, of course, important to those who have none. It is an exaggeration to say that all workers are affluent. It is difficult for wage labourers to raise teenagers. Having their children earn an apprenticeship wage means a great deal to working class parents. The transition from being a student to earning an apprenticeship wage also means a great deal to young people. Being rewarded for their work is something they have not experienced in the school system. Another aspect is the pressure of the consumer society. The consumer pressure is particularly heavy on the young. Most important, wages represent independence from parents and assuming an adult role, the right to be taken seriously, to earn respect. Wages are important but the apprentices also expressed their pleasure in having responsibility and independence (See also Axelsson 1989: 148). With the physical developments of puberty, the ability to earn money on the labour market seem to be essential to the self-worth and confirmation of one's social status as young working class adults.

The One Hundred Who Wanted Full Training in School

Who were the hundred apprentices who would have preferred full training in school? In what fields did we find them?

If we look at gender distribution, we find that more girls than boys expressed this preference.[3] These girls were in service and in food

[3]In the survey there were 1,416 boys and 201 girls, 151 girls in traditional women occupations and 50 in non-traditional. In the two participant-observation groups there were one girl in the graphics class. (Mjelde 1984)

industries. The girls in non-traditional fields regarded training in vocational school as a less appropriate choice.

Girls in hairdressing were particularly interested in going to school rather than working as apprentices. It is characteristic of this field that the work place is small, the atmosphere constraining, the work hard, the pay low and union organization poor. In the craftsmanlike master/apprentice situation you find an unambiguous hierarchy. The master has the power, is both employer and chief instructor. Master and apprentice do often work side by side and the aspect of control vis-a- vis the apprentice is strong. An apprentice hairdresser explained as follows:

> "You are exploited, you do all the work of a trained hairdresser but you're much more badly paid. The employer knows too little about the laws. In order to get my required training, I had to quarrel with the master for half a year. If you go to school every day, you're guaranteed full training. In a beauty parlor your training has a tendency to take second place."

An aspect here is also that you find that hairdressing classrooms are normally in state-of-the-art working conditions. In other fields, for example mechanical engineering, the equipment is expensive and the school has difficulties in keeping up with the changes in technology. In the mechanical engineering plant, it was stressed that the apprentices could learn more because they had equipment and market relations that the school rooms could not duplicate.

Apprentices in some other fields also expressed discontent. An apprentice cook:

> "I would prefer going to school. I've gotten too old to be an apprentice. I find myself doing all sorts of shitwork. The tone seems to be: My apprenticeship was shit, yours is going to be too. I've been told this by all the cooks in my workplace."

A graphics apprentice:

> "In the workplace the employer doesn't have time to teach you anything. We're told that we're supposed to learn theory in school."

An apprentice mason:

> "My training should be better. There is no supervision from the master mason, bad teacher, no teaching, the training curriculum not followed."

Copper and tinsmith apprentices:

> "Yes, if paid wages. Too much shitwork when you're an apprentice. Work alone too often without supervision of journeyman. Too much routine work on a job with 48 identical apartments."

> "If I were paid, I'd have gone to school. Too much shitwork when you work as an apprentice. If you get an independent job, you learn

a lot. But there is too much routine, too much stress. The boss is only interested in making money. He does not take time to teach us apprentices what we have to know to be able to pass our journeyman's exam."

The apprentices experience exploitation, poor training, routine labour, and stress. Every work place has its own culture and the various fields in vocational education have different traditions and customs that define the work atmosphere. A boss influences the apprentice's life, particularly if the business is small. Another aspect is that some employers appear to regard apprentices as a source of cheap labour power and are not taking their teaching responsibilities seriously (See also Jakobsen 1984). The Pukks Project, which explored the life of apprentices in the construction industry in Denmark, pointed out that apprentices as cheap labour have a different importance in craft production than in industrial production. Craft production favors a long period of apprenticeship. Industrialized businesses rarely have the possibility of offering a broad education because the work has been specialized and sub-divided. The machinery used is bigger and more expensive and must be more extensively exploited. If apprentices were to participate in such labour processes the level of machine productivity would be lowered. For many large, high technology businesses the cost of labour is of relative little concern and cheap labour is not a decisive factor (Houman Sørensen et al 1984).

But, in spite of difficulties and negative experiences, all the apprentices in the mechanical engineering plant, all in the graphics class and 89% of the apprentices in the survey had a positive attitude toward being an

apprentice. This was particularly true as compared to their experiences in primary school. Preference for apprenticeship positions is stated in relationship to being tired of school, the atmosphere at work, colleagues and the contrast between school and work, between theory and practice. As an apprentice mechanic said:

> "It was great not to have to sit at a school desk and just take things in. Finally do something yourself. I feel that working and making money for three years is much better for me. Besides, I was tired of school."

When the apprentices in the project express their preference for apprenticeship and learning in the work place it must be understood in relationship to these phenomena. The most frequent reason they gave for preferring apprenticeship was that they were sick and tired of school and that school had been hard for them to endure. Even though many apprentices were critical of their apprenticeship roles, they felt more useful, freer and part of the adult world.

Union Members Protection from Exploitation

The trade union movement has been important in protecting workers from exploitative conditions which arose with the development of industrial capitalism. 39 % of the 1,617 apprentices in the survey were members of trade unions, all the seventeen apprentices in the industrial plant and four of nine in the graphics class. Industrialization brought the working class into being. Social classes, in the objective sense, have existed

ever since kinship societies were superseded by state institutions, but class consciousness is a phenomenon of the industrial capitalist era (Hobsbawm,1984:17). The process of bringing workers together in a condition of exploitation is expected to lead to class consciousness and class struggle.

Manual workers are directly subjugated to the contradictions between labour and capital. Their every day life is marked by the ebbs and flows of the labour market: by supply and demand, by competition in the market, and linked to this, by the changes in the production processes; in short, labour is deeply affected both by the monotony of the work and the insecurity that arises from the great fluctuations that are specific to the manual labour market. Apprentices experience these movements and contradictory processes on a daily basis. They experience exploitation in a particular way.

A hairdresser's apprentice said:

> "You are exploited, you do everything a fully trained hairdresser does, but you're paid much less."

She sees the exploitation in relation to how she works; she does the same job as a fully trained hairdresser. Many apprentices mentioned being exploited, but did not know what to do about it. Understanding exploitation does not make you automatically understand the injustice of domination. Exploitation is crucial to management, but it is domination which makes it possible. When you sell your labour and nothing else, you

are used by others, dependent and dominated. It is most dramatically apparent when one is the new trainee worker.

Management's understanding of the contradictions, (from a position of dominance and management) is expressed in the following passage from a policy document by the Nordic Employers' association:

> "There are two sides in educational politics which are of utmost importance. On the one hand are questions about qualifications. We must, with our educational policies, create the qualifications necessary to secure a development both in the life of the individual, in business life and in society as a whole. On the other hand there is the question of attitudes. Educational policies must create attitudes which make further democratic development of society possible. This best happens if one learns to combine loyalty to the rules of the game that society has created with that labour which develops and improves society. Attitudes that create revolution have in the course of history clearly demonstrated that they may entail a change of power and a perpetuation of diseases from which society already has and often a worsening of the problems". (Nordisk Utdanningspolitisk tidskrift, Nordic Employers Association, 1980:11).

Employers express often their complex relationship to the issues of qualifications. The employer's dual view of the qualification issue has been involving, on the one hand, the denial of qualification as a necessity along with a constant battle over dequalification and, on the other hand, the realization that the human factor and qualifications affect production

(See also Charlot and Figeat 1985). The following quote from a Danish employer amply illustrate the point:

> "We need young people who can think and act independently and who do what they are told." (Christrup 1980:61)

The representatives of the Nordic Employer Association also express their concern about the potential political actions of the working class. They point directly to the importance of the educational system as a tool for stabilizing the social system.

The rising class consciousness and organization of the working class have inspired substantial debate throughout this century (Burawoy 1985, Hobsbawn 1984, Lukacs 1970, Repo 1982). In the findings of classical Marxism, class consciousness is composed of contradictory trends. Class consciousness is shaped, on the one hand, by the ruling ideas, and on the other by the workers' relationship to production and the social consequences of their exploitation as workers. Karl Marx (1967,1985) discussed this both in his philosophical work and in his writings on political economy. He interpreted class consciousness as class specific; i.e. capitalism seen from the viewpoint of the capitalist or the worker; each creating a different consciousness. The bourgeois consciousness dominates society and is exhibited among the workers as well, but as contradictions of interest develop between labour and capital, between the forces and relations of production, and as the working class becomes progressively more oppressed it tends to develop an opposing consciousness as a component of the process of organizing against oppression.

In his work, **History and Class Consciousness**, written between the two World Wars, Georg Lukacs claims that the reason for the lack of development of revolutionary consciousness in the working class lies within the process of production and commodity circulation, not outside the process (Lukacs 1970). He locates the production of consciousness within the labour process, but he distinguishes between the objective facts of class and the theoretical deductions that could be drawn from them. My research on apprentices shows that apprentices understand the oppression they experience, but that they do not know what to do about it. The study also shows that only 39 % of the apprentices in the survey were organized in trade unions. At the same time, their comments indicate a considerable consciousness of their situation in the manual labour market.

Antonio Gramsci has made an important contribution to understanding more of these complex questions (Gramsci 1975, Forgacs 1988, Hoare, Nowell Smith 1971). While Lukacs mainly uses political economy as his point of departure, Gramsci also uses the philosophical writings of Marx. He concerns himself with the ideas of the ruling class and the working class, and argues that it is important to understand people's sensibilities because they are the foundation on which the struggle between dominant and challenging ideologies are fought. Common sense and good sense are two of Gramsci's concepts. He believes that every person is a philosopher in the sense that she/he tries to understand his/her own experience by employing concepts learned in the actual cultural setting. Every person is created through his/her role in the production process, which forms the collective side of his/her identity. Working people gain their class

consciousness through working together in the production process. However, in a society where workers play a subordinate role, this class identity is prohibited from expressing itself freely, in an articulated manner. Other world views, originating in worlds distinct from working class experience, are imposed on workers in disparate ways. The sensibilities of working people is not unitary, it is composed of many differing world views and experiences, often difficult to reconcile with one another. But through union actions, they act together. This is part of the reason that working class behaviour seems unpredictable to management.

Gramsci calls this mixture "common sense". It contains both good sense gained from class experience and layers of earlier and current perceptions of the world. It is made up of myth, religion and the more developed world views of the ruling class as well as good sense.

> "Common sense is not a single unique conception, identical in time and space. It is the folklore of philosophy, and like folklore it takes countless different forms. Its most fundamental characteristic is that it is a conception which, even in the brain of one individual, is fragmentary, incoherent and inconsequential, in conformity with the social and cultural position of those masses whose philosophy it is. At those times in history when a homogenous social group is brought into being, there comes into being also, in opposition to common sense, a homogenous, in other words coherent and systematic, philosophy." (Forgacs, 1988:343)

The comments of the apprentices in the project revealed this mixture of thoughts, and an understanding of a school system which function neither for the craftsman, nor the academic. (Mjelde 1993:108). But the apprentices did not express much belief in their own ability to change their situation, or understanding of the role of the trade unions in their everyday life.

The seventeen apprentices in the industrial plant were union members. In larger businesses, where union and class consciousness is strong, it is impossible to work without being a member. But confusion reigned among the seventeen; they had been working for just two months and were not certain if they belonged to the union. They had not talked, neither with each other nor with other workers, about union organizing. Only two apprentices knew that union fees were being deducted from their wages, and they had relatives working in the firm. The union leadership in the factory had not informed them about trade union activities.

Research into trade union organizing in Norway indicates that the level of union membership in different fields of the manual labour market is often determined by the size of the business and the traditions of the work place, and that the attitudes vary in craft and industrial concerns (Fivelsdal 1964, Lysgaard 1965). Traditions of unionizing are entirely different in a large industrial iron and metal working plant from what they are in a beauty parlor or a goldsmith's shop where there might be one single apprentice. In the latter case, becoming a union member against the wishes of a master would require personal stamina, whereas the strength of numbers in the first case provides collective clout. Crafts masters have often succeeded in fighting attempts to organize. The survey

revealed big differences between unionizing in craft contra industry, different trades and sizes of the businesses.

The Renaissance of Apprenticeship

An increased interest in the development of vocational education and apprenticeship has emerged in the Western industrialized world in the last few years from different agents. The list of examples is long: OECD formed a working group to compare vocational education in its member countries (Ministry of Education, Research and Church Affairs, 1992). Provincial governments in Canada have established "the Ministry of Skills", where the central question is skills in the manual labour market. France is developing a "Baccalaureat Technique". Sweden has launched a full-scale evaluation of its upper secondary educational and adult education programmes, and decision has been made to link the upper secondary schools vocational fields closer to the labour market. Denmark is taking steps within the vocational programmes in the school system to co-ordinate theoretical subjects with practical training in the workshops. Motor mechanic students will learn Danish, English, mathematics, physics - all related to what goes on in the workshop. Finland has had an external evaluation of their polytechnical education (see also Heikkinen 1992, 1995). Vocational education is one of the central targets in the European Unions' Leonardo da Vinci Programmes.

Issues and development such as these were the focus of the important document where policy directions within the vocational field of Norway for the 1990s were drawn up.(Norwegian Official Report no.4, 1991) The report proposes to guarantee the right of all young people to achieve

matriculation and/or vocational qualifications. As the system have been between the 1970s' and the 1990s, only the students in the academic field in upper secondary education have had this right. Of the students in the vocational fields, only eleven percent of the cohort have had a possibility to enter a second year and only three percent a third year during the past 20 years. The competition over apprenticeship positions has also been fierce in this period (Mjelde 1993,1996).

During the past decades many young people with some background in vocational schools have entered the unskilled and semiskilled labour market. Their destiny have been to wander in and out of unemployment and in and out of adult education courses, depending on the ebbs and flows of the manual labour market (see also Lien 1995,1996). These problematics are at the core of the discussions in relation to the new reforms in vocational education. The apprenticeship model, with its roots in the craft production in the Middle Ages has gained new actuality. Labour and Employer's unions are back on the arena of vocational education. And everybody, between 16 and 19, is said to be guaranteed a full education.

The main model for vocational education in Norway under the new reforms, called "Reform 94", is two years spent in school, followed by apprenticeship in working life. One of the difficult problematics in the reforms is the increase in traditional classroom teaching and decrease of workshop learning (Mjelde 1996a, Mjelde 1996b). Another crucial question is how to find appropriate apprenticeship places after two years of school? In the spring of 1996, 9000 vocational school students who have finished their two years in vocational school, were unable to find

apprenticeship. Employers are economically subsidized by the state for every apprentice they take in. An employer gets 53 000 N.kr. (#US 10 000) a year for every apprentice she/he takes in. Apprenticeship places are dependent on the ebbs and flows on the manual labour market, but also the willingness to think new in fields with no traditions with apprenticeship. The Apprenticeship Law has now become legally applicable to new branches of the economy - such as the service sector. Child care, auxiliary nursing, youth work are also developing their apprenticeship systems.

Another crucial question is how to secure the learning processes in the work place; how to train good instructors ? The "Apprenticeship project 1982-1984" found that apprentices had little knowledge about who were responsible for their training and well-being in the work place, in short they showed little knowledge about their rights and duties in general (Mjelde 1993:132-140). The reforms are also targets of evaluation and new knowledge and new thinking might emerge.

In recent years researchers from different disciplines in Scandinavia have been working within the complex field of the development of the manual labour market and the development of vocational education and adult education (Halvorsen og Olsen, 1992, Halvorsen 1994, Heikkinen, 1994, 1995, Mjelde and Tarrou 1992, Blichfeldt et Al 1996) Economic restructuring are posing new questions about old divisions of knowledge, the division between intellectual and manual labour, between academic and vocational learning traditions in Scandinavia as elsewhere. (See also Charlot & Figeaut 1988, Tangui 1985, Sultana 1992) And apprenticeship seem to have gained its renaissance in some societies and not in others.

There are, for example significant similarities, but also significant differences in this century in the development of the manual labour market and vocational education in the Scandinavian countries, despite similar political developments. Variations in the apprenticeship conundrum would be an interesting topic for comparative research. [4]

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[4]The comparative research project of Marc Maurice, Francoiz Zellier on the development of vocational education and the labour market in France and Germany is one of the projects which has shed new light on these complex questions.

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Chapter 4

APPRENTICESHIP IN FINLAND: IS THERE SUCH A THING?

Anja Heikkinen, Leena Kuusisto, Maija Vesala

Introduction

Initiatives and programmes of promotion of "apprenticeship training" are uniting European discussions on developing vocational education into a more efficient, flexible and responsive system. In this paper we will discuss this phenomenon from the Finnish perspective. There are several reasons for the question mark in the title, since the promise of apprenticeship has inconsistencies compared to expectations towards other types of vocational education. Our motivation is also to challenge the role of researchers in the discussion: do they really bring more and deeper understanding on what has been and is at stake in the apprenticeship training at the European and national levels?

In the following we will first describe, why apprenticeship is so tempting for the Finns and secondly question the use of the concept of "apprenticeship" in this context. Thirdly, we will describe some facts and history from the Finnish "apprenticeship proper" and fourthly, characterise it as one of the "apprenticeship types of learning" in the Finnish vocational education. In the fifth section, some remarks are made on the broader context, where the specificity of Finnish

"apprenticeship" should be related. Finally, we suggest that the national discussion and research on apprenticeship should be broadened to include pedagogical reflections on the whole educational system in relation to the social and economical challenges, concerning all people.

1. The promise of apprenticeship

The paradigms of VET seem to be converging in Europe, if not worldwide. Both policy-makers and social partners seem to agree that the definition and assessment of occupational skills and competencies, control on execution of training programmes, evaluation of relevance of learning outcomes should be handed to the "work-life" - and teachers and educational institutions changed into service centres, responding as directly and flexibly as possible to its needs and expectations. In the recent Finnish discussions there seems to be great desires and hopes for apprenticeship in education. Why? What is the promise of apprenticeship? Some popular hopes are:

- Apprenticeship will remedy unemployment, especially of young people.
- Apprenticeship will be more flexible in meeting the needs of working life, because employers are involved in planning the education.
- Apprenticeship will be cheaper and employers will take part in financing.
- Apprenticeship will be more motivating for students, especially for those who do not prefer theoretical studies.

- Apprenticeship will generally be a flexible system compared to rigid schoolish education.
- Apprenticeship will quickly balance the generational gaps in vocational education.

Although all these issues are as such essential for improving vocational education, experience and reality of apprenticeship seem neither in Finland nor in other countries to confirm the expectations. Nevertheless, in Finland they have, among other things, contributed to a government decision that 20 % of all starting VET should be arranged through apprenticeship. Paradoxically, on the other hand, the decision states that 65 % of the age-group should achieve higher education either in universities or polytechnics. Why then is the idea of apprenticeship so popular, although the results and experiences have not been so convincing and good? Are there some other ideas behind the need for this change? Is it an indicator of a wider trend in educational system or in relations between education and work-life? In order to understand these seemingly contradictory trends, the promise of apprenticeship should be reflected in the context of the whole educational system and ideas.

2. The concept of apprenticeship

In order to better understand what is going on in Finnish VET, it is necessary first to look more closely at the concept of apprenticeship. The concept of apprenticeship as a starting point is not at all so clear as one might imagine. Especially, if claims are made about "apprenticeship type of learning" as pedagogically more advanced compared to "school-

based learning", they may cause misunderstanding, if the concepts are not clarified and located into some special context. Some preliminary remarks may be made from Finland, where "apprenticeship", translated and compared straightforwardly to other European countries, seems to be a very marginal phenomenon. However, it does not mean that there has not been "apprenticeship type of learning". Some important aspects in defining this type of learning surely are such as: a) the nature of the site of learning, b) the procedures of learning and teaching, c) control and authority on learning-teaching arrangements, d) the nature of student-teacher-relation, e) financing. It depends heavily, on which aspects you concentrate, whether you find and which kind of "apprenticeship type" of learning in Finland.

For example, if the nature of the site of learning, control and authority on learning-teaching arrangements are taken as main aspects, categories of Finnish "apprenticeship type" of vocational education may be the following:

Representatives of "apprenticeship type" of learning:

"work-based learning"	<->	"apprenticeship (proper)	<->	"school-based learning"
learning on the job		school-led mix of work- and school-based learning		workshop-learning

Still, if we look at the procedures of learning and teaching and the nature of student-teacher-relation as the main aspects, great differences between branches and stages may emerge even inside the Finnish VET.

Many forms of school-based learning include a great amount of learning on the job, although the teachers role is very important.

3. Facts and history of the "apprenticeship (proper)" in Finland

In Finland, vocational education is primarily given at educational institutions. Apprenticeship training has a marginal status. About 95 % of students aiming at professional qualifications study in some educational institution. An essential part of vocational education is the teaching of practical skills which takes place at school, in its own workshops. In all vocational fields, the curriculum also includes practical training in workplaces, varying in length from one to twelve months. The vocational institutions produce trained labourers with a relatively solid and wide theoretical basis in various occupational fields, but less with specific skills needed in actual work-practice. Therefore, one of the aims of education policy during the past years has been to strengthen the status of on-the-job training in Finnish vocational education. This has been done by increasing training places in work-life and by developing the apprenticeship system.

The table 1 shows the quantitative development of apprenticeship in the vocational education system. Until the 1960s apprenticeship was limited to the traditional craft occupations; from the 1960s to the end of the 1970s, the focus was on industrial occupations. Ever since, the majority of apprenticeship placements have been in the service sector: in the year 1996 the most popular occupation was the "care-taker" (occupation combining nursing and social care).

Table 1. Quantity of apprenticeship contracts and students in vocational institutions.[1]

Year	Appr. law	Appr. contracts	Students in voc. institut.	Apprentices (%)
1924	1923	250	15388 (1920)	-
1930		1179	20312	5,5
1960		3159	53196	5,6
1970	1967	2687	98706	2,7
1980		5157	137908	3,6
1990		7235	162535	4,3
1992	1992	4732	191283	2,4
1993		10025	199525	4,8
1994		7342	202859	3,5
1995		12719	203134	5,9
1996		17136	-	-
1997 (budgeted)		18500	-	-

An important function of apprenticeship - explaining partly the maturity of apprentices - has for decades been to promote "the equality of opportunity", by providing an alternative for older, less trained workers. Dropping out of the apprenticeship has always been quite common. Typical reasons have been such as: apprentice is getting a job or starting studies, or doesn't like his/her job, the enterprise is closed down or it doesn't have the time for training the apprentice (cf. Pirkanmaan oppisopimustoimisto 1996). Most often it is the apprentice who wants to cancel the contract.

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[1] Kom. 1933:4, Kom. 1961:6, Kivirauma 1990, Enbom 1992, Tilastokeskus 1996 a, b, Työministeriö 1997.

Although the number of apprentices has been growing during the last years, it is far from the 20 % of all VET - mentioned earlier - that should be arranged through apprenticeship. In fact, the amount of apprentices has increased also because of the possibility to arrange continuing training (duration about 4-12 months) through apprenticeship. Table 2 shows how apprenticeship functions nowadays.

Table 2. The functions of apprenticeship (Opetushallitus 1996).[2]

The entry requirements of the student	Duration of training	The goal of the training
(Former) Primary school/ Comprehensive school/ Upper secondary school	Apprenticeship training (about 1-4 years)	Initial vocational training: • basic qualifying examination • qualifying examination
Vocational school and/or working experience	Apprenticeship training (about 4-12 months)	Continuing vocational training: •further training •specialised training •qualifying examination •special qualifying examination
A person who changes his/her occupation	Apprenticeship training (about 4 months - 4 years)	Retraining

[2] Explanations: "the basic qualifying examination" is equivalent to the basic degree from initial vocational education in schools (increasingly also in colleges or polytechnics), "the qualifying examination" is for a more specific occupation ("skilled worker"/"Facharbeiter"), "the special qualifying examination" is for a master in occupation ("Meister").

The traditional apprenticeship training goes back to the days of the guild system. In handicrafts, journeymen and apprentices learned their skills under the guidance of masters. The guild system was closed down in 1868 by the trade law. The act on the liberation of trade was passed in 1879. After that one needed not to be a master to carry on a craft-trade or to have apprentices. This part of the act remained mainly in force until the 1920s. Thus far there have been three specific apprenticeship laws thus far. The first one was passed in 1923, the second in 1967 and the third in 1992; naturally there were some changes in some sections of the laws between those years. However, all these statutes had marginal meaning for the bigger enterprises and export industry and their training arrangements. Also, because the majority of Finns worked in agriculture and forestry till the 1950s and there was a growing service sector since the World War II, the legacy of training in the guild system was not influential.

Some essential features of apprenticeship laws are collected in Table 3.

Table 3. Apprenticeship laws in Finland

Apprenticeship law	**1923**	**1967**	**1992**
The scope of the law	craft and industry	all occupations for which there is an official "learning programme"	all occupations for which there is basic curriculum for adult education or rules for qualifying examination • youth and adult education • basic and continuing schooling
Employment contract	+	+	+
Written apprenticeship contract	+	+	+
Age	- 18 (1934: - 21)	15-23 (1973: 15 -)	15 -
Duration of apprenticeship	2-4 years probation period 3 months	2-4(5) years probation period 1-3 months	personal study programme probation period max. 4 months
Practical training	in enterprise	in enterprise	in enterprise
Theoretical studies	general apprenticeship school	special courses	special courses
Qualifying examination	after apprenticeship the apprentice had to do official qualifying examinations	- it is possible to do qualifying examinations	- it is possible to do qualifying examinations
Financing: * Employer * State	wage -	wage during on-the-job training • training compensation to the employer • daily allowance during theoretical studies to the student	wage during on-the-job training • training compensation to the employer • social subsidy to the student
National responsibility	Ministry of Trade and Industry	Ministry of Trade and Industry National Board of Vocational Education	Ministry of Education (1973-) National Board of Education
Local responsibility	municipal task • board of apprenticeship • labour inspector	municipal task • board of apprenticeship • inspector of apprenticeship	municipal task • board of apprenticeship • inspector of apprenticeship

If we look how the laws transformed during the years, some points can be made:

• **The scope of the law** has become wider. First apprenticeship contracts could only be made in crafts and industry, in the 1930s officially for about 100 occupations (Kauppa- ja teollisuusministeriön päätös 24/1939). During the 1950s and the 1960s altogether 122 vocational "learning programmes" (curricula) were prepared for apprentices (Niini 1955, Ammattikasvatushallitus 1973). Nowadays it is possible to make an apprenticeship contract for all occupations, for which there is the national basic curriculum for adults or regulations on qualifying examination.

• **Employment contract** has always been made between the employer and the apprentice.

• There has also always been a **written apprenticeship contract,** made between the apprenticeship inspector, employer and apprentice, accepted by the (Regional) Board of Apprenticeship. The duration of apprenticeship and probation period, the occupation to be studied, theoretical studies, basis of wage and nowadays also student's personal study programme, should be stated in the contract.

• **Age** In Finland apprenticeship has become more and more adult education. For example in Tampere region, 40% of apprentices are over 30 years old (Pirkanmaan oppisopimustoimisto 1996).

• Previously the **duration of apprenticeship** was from two to four or five years and it was initial vocational training. Nowadays also shorter

periods and continuing training are possible as can be seen from the table 2.

• **Practical training** has always taken place in work-place, on the job.

• **Theoretical studies** were at first taught in General apprenticeship schools (previous craft schools), which were evening schools for apprentices and other working students. They were mainly teaching general subjects. Since the 1960's there have been special courses in vocational institutions, especially planned for the apprentices. The courses were offered according to the "learning programme" or curriculum of each occupation. Nowadays the courses are organised according to students´ personal training programmes. The local apprenticeship authorities buy the theoretical courses from a vocational institution, vocational adult education centre or other provider of education.

• **Qualification examinations** were obligatory before 1967. After the new apprenticeship law, and the new law on qualification examinations, apprenticeship and qualification examinations were not connected to each other any more. Naturally the first qualification examination ("journeyman's level") or special qualification examination ("master's level") still could be taken after studying as an apprentice.

• **Financing**: Basically, employers have always paid the wage of the apprentice, but the state support to the employer has became more and more important. Nowadays the state pays 97% of the training costs per student, according to the standards set by the Ministry of Education, and the municipality pays the rest.

• **National responsibility** for apprenticeship training has moved from the Ministry of Trade and Industry to the Ministry of Education in 1973.

• **Local responsibility** for apprenticeship has always been municipal. There have been Boards of Apprenticeship and labour inspectors - later apprenticeship inspectors - to control the apprenticeship contracts. In the beginning the Board of Apprenticeship was obligatory only in bigger towns, but after 1967 also in smaller municipalities. Therefore municipalities have built up federations to organise the Boards of Apprenticeship and to take care of apprentices. Nowadays there are 46 Boards of Apprenticeship for about 450 municipalities.

4. Forms of "apprenticeship type of learning" in VET - some Finnish characteristics

The variety in different forms of "apprenticeship type of learning" in Finland has its roots in occupational and educational traditions. In this chapter they will be described and compared with each other in some aspects. These are taken from comparisons, which have been typical for earlier cartographies on apprenticeship, for example made for CEDEFOP (European Centre for the Development of Vocational Training). In these comparisons - such like "Apprenticeship in the EU Member States" (1995) - the **main actors**, whose roles have been compared in apprenticeship can be listed as follows:

- the apprentice
- the employer

- schools or training centres
- social partners.

The **main elements** or processes, which have been compared are:

- the contract (who, what, when...)
- administration and financing
- evaluation, certification and qualification
- entry into the working life.

It is impossible to grasp the complexity of apprenticeship or "apprenticeship type of learning" in any country just by using this list. Still, despite its limits to catch the historical and cultural features, it can be used for preliminary description and organisation of information on Finnish apprenticeship type of learning. The following table is constructed using previous list and gives some information about the relationships between the main actors, their roles, duties and rights in Finland.

Table 4. "Apprenticeship type" of learning: contract, employer and school

FORMS OF APPRENTICESHIP TYPE LEARNING	CONTRACT AS employee	 trainee indiv/instit	EMPLOYER pays wages	 gets public support	SCHOOLS AUTHORITY IN practical training	 certification	INSPECTION
1. Apprenticeship	+	+	+	+	-	+ (only theory)	apprenticeship officers
2. Working as a trainee	+	-	+	-	precondition to school or accepted later as a part of studies		
3. School-based practical training (employer + school)					teachers involved in practical teaching		school has same tasks and function as apprenticeship officers
3.1. "Contract of practical studies" (typical in health and social care)	-	+	-	+	+	+	
3.2. "Training contract" *) employer + school							school has same tasks and function as apprenticeship officers
• guided training	+	+	+	+	+	+	
• working as a trainee before, during or after studies at school	+	+	+	+	+	+	
• practical training	- (+)	+	- (+)	+	+	+	
3.3. Training as part of education for adult unemployed	-	+	-	+/-	+	+	
4. ("Supported employment")	+	-	+	+	-	-	

*3.2. "Training contract", (Temporal change in the Law of Apprenticeship 647/1983) defines three kinds of practical studies:
- Guided training: practical lessons of the institution are held in real working life. Short periods (15-20 days).
- Working as a trainee before, during or after studies. Employer is responsible for the trainee in working place, school is responsible for education.
- Practical training: work-experience period, compulsory for complete qualification. Normally 12 months. Employment contract and contract between employer and school, where content and assessment of training are agreed.

Some comments can be made on the table. The forms of "apprenticeship type learning" are presented in loose chronological order. **Apprenticeship (proper)** and **working as a trainee** are the oldest forms, which still exist and have increased again just recently. Their share of all the forms of apprenticeship type of learning is around 20 %. They have during the last decades been typical in service, in technical fields and forestry, but have increased in other branches as well. The main type is the **school-based practical training** in different forms. The diversity of concepts and contents in this type is an indicator of the historical differences between different branches of VET. The last two forms have become more meaningful with growing unemployment. The **"supported employment"** does not exactly belong to forms of learning, but was included to the list, because by using it an employer can get a great public support for wages: it can be 75-100 % of the wage. Therefore, it is easy to understand why it may be a good choice for the employer to hire an unemployed rather than a trainee or an apprentice.

In the rest of the table, the forms of "apprenticeship type learning" are compared in some aspects. In **the first column** there is the **"contract"** which has a key role in apprenticeship. It can be made either for working as an employee or for studying as a trainee. In the latter case, the contract can be made by individual him/herself or by his/her educational institution - like in most cases. **The second column** "employer" shows, whether the employer pays wages or not, and in which cases gets public support or not. **The third column** describes the school's and teachers' role in different forms of "apprenticeship type of learning" and in **the last column** there are some comments on the principles of inspection.

What conclusions can be made from the table? What is noticeable **at once** is the **absence of social partners**. It is not accidental, but rather tells about the situation in reality. However, in the latest discussions, at least some groups among the social partners have shown increasing interest to strengthen their role. **Another point** to be made is **the contract**, which gives the individual a position of an employee and/or a trainee. This relates directly to whether he or she is paid by the employer or not. Social and health care differ considerably from other branches, since the students are not personally paid for their work. In fact the employers are paid approximately 200 US dollars in month for each student working for them. The amount of public support is of same size in other forms of "apprenticeship type of learning". In the apprenticeship proper, there is a major difference in supporting apprentices under 25 years old, whose support is doubled, being around 400-500 US dollars in month for an apprentice. The only case where the employer is not getting any public support is "working as a trainee". In this form, the individual has no role as a student but only as an employee. Thus, in all other forms the employers are more used to receive public support rather than paying for recruiting trainees.

A third conclusion from the table is, that despite differences between branches, the **schools and teachers** have had and still have a remarkable authority in almost all forms of "apprenticeship type of learning". For example, in health care teachers have always been involved in occupational practice and working life. Thus, even if the Finnish model is called "school-based", there has been and still are strong and close connections between the schools and working life. This is not to deny the many

problems in education-work-relations or obvious variations between branches and individual teachers.

5. On the general context of apprenticeship: distinctiveness and paradigms of Finnish vocational education

In order to understand, why the "apprenticeship proper" and the forms of "apprenticeship type of learning" have their characteristics, they must be perceived in the broader context of Finnish vocational education, in relation to economy, politics and production. Although this is not a place to do it thoroughly, some suggestions can be made for starting such contextualisation.

A hypothesis can be made on ideal-typical "hegemonist paradigms", which have been emerging in Finnish vocational education since the 19th century. They are characterised according to their conceptions of a) the social meaning of vocational education (educational macro-orientation), b) the nature and meaning of work and occupation (occupational orientation), c) the educational role of educators and institutes (educational micro-orientation). Accordingly, the actual pedagogy in various fields of vocational education has been a diverse combination of

* the cosmopolitan **"technocratic paradigm"**, which aimed at skilling and motivating the "human machinery"

* the **"nationalist paradigm"**, which aimed at enabling people to participate in work-life and to justify their social participation through work

* the **"paradigm of collective (professional) care"**, which aimed at supporting people to live a human life and to find self-fulfilment in work and at controlling their social, physical and moral well-being in and through work.

The paradigms are connected to the development of the "apprenticeship type of learning" primarily because, despite differences, they all excluded vocational education based on practical or craft (or "professional") expertise. Especially in the fields of crafts and industry, school-based learning, arranged and controlled by expert-teachers, has been preferred to work-sites and skilled workers. Even the forms of work-based training (esp. "apprenticeship proper") - their curricula, examinations - have been controlled by the experts in educational administration and schools. Furthermore, in considering the formation of the distinctiveness vocational pedagogy in different paradigms, following aspects, partly emerging in chronological order, partly simultaneously, can be mentioned.

* First: differentiation from the **general education**, i.e. from subjects related to education for citizenship and encyclopaedic education - since the middle of 19th century

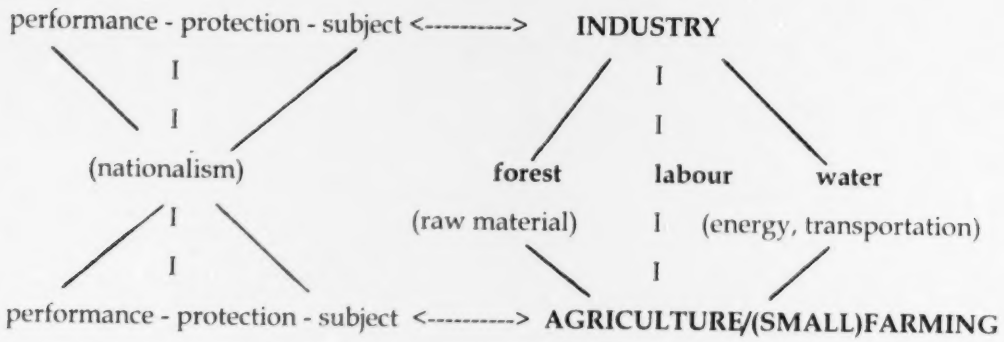
* Secondly: differentiation from **work-based learning** of skills: teachers and state controlled schools were preferred to skilled craftsmen and private provision - since the later part of 19th century

* Thirdly: specialisation according to various education and training functions: differentiation of institutions and teachers of **practical work, vocational theory** and **general subjects** - since the turn of the 20th century

* Fourthly: formation of a kind of a specific "profession" supported by **unification** of vocational teacher training and formation of unions - increasingly since the 1930s and 40s.

The comprehension of the emergence of the paradigms and distinctive pedagogy in vocational education is, however, impossible without contextualising it to developments in politics, production and industrial relations. (cf. Heikkinen 1994) In doing so, Pauli Kettunen's (1994) characterisation on development of Finnish industrial relations through interconnected ideas of protection, performance and subject, may be helpful. To describe it simply: the idea of protection of labour legitimated the social political reforms and demands, the idea of effective work-performance required technocratic rationalisation of labour process, the idea of subjectivity in work-process required discipline and moral commitment. According to Kettunen, the combination of three ideas was presented as meeting both the needs of production and the needs of the workers. Extending his characterisation into broader economic and social development, a suggestion on the national context for formation of vocational education paradigms and pedagogy may be given. (cf. Kuisma 1993, Rannikko 1989, Myllyntaus-Michelsen-Herranen 1986, Michelsen 1993)

Figure 1. National context for formation of Finnish VET



The symbiotic relation between the poles of (small) farming and (forest) industry seems to have been decisive for the external and internal development of the Finnish economy, production and national state. What joined the various nation-building and economic projects since the 19th century, was the integration of ideals of national and personal independence to successful economy and efficient production. The emerged occupational structures guaranteed the success of the Finnish export industry, national independence, social integrity and basic social security. The formation of the paradigms of vocational education can be understood on the basis of and as legitimated by this fundamental constellation. The technocratic paradigm represented the ideals of performance, competitiveness of the export industry and rationalisation generally. The nationalist paradigm promoted the subjects in work-process, self-supportiveness of the nation and its people. The collective care paradigm represented the ideals of protection and continuity in popular principles of mutuality and sociability also in work relations.

In the post-war Finland, the aspects of distinctive vocational education and the "hegemonist paradigms", however transformed in their charac-

ter and relations, have until the 1980s been strengthening. The various political, economical and educational "projects of Finland" seemed to assimilate into a consensual project of "forced modernisation", including improvement of regional, social, economic and educational equality. The institution of vocational education with its teachers, administrative and teacher training staffs, who were committed to specific vocational pedagogy, was becoming one cornerstone in this project. The alternatives of "educative work-place", learning on the job, etc. were increasingly marginalised in the dominating discussion. Either they were perceived as "poor compensations" for proper school-based education, or their actual importance (like in health care) was ignored.

If the latest policy and reforms on "apprenticeship" do essentially transform its role in vocational education, is this an indicator of a radical change in the general conceptions of vocational education and of an emergence of a new hegemonist paradigm? Might this include ideas of stabilising the distinctions between permanent - flexible/part-time jobs and core - periphery jobs and the polarisation between those who (still) have an ownership of their skills and occupations and those who do not? If this were the case, to which new "projects of Finland" - or any other projects - the changes are related and **whose** projects are they anyway?

6. Towards a more pedagogical discussion on forms of learning in vocational education

From combining our descriptions and reflections to the questions in the first chapter, some final comments can be made.

There is almost no pedagogical tradition for VET in the Finnish work-life, especially in small and medium size enterprises. On the other hand, we know from our national educational experiments and experiences in other countries, that developing educational traditions or reforming work-places into anything like "learning organisations", takes time - and hardly can be dictated by any governmental regulations. Together with persistent unemployment and rationalisation of industrial and service production, the recent development of vocational education seems paradoxical. On one hand, work-based learning is arranged by transforming the governmental employment-subsidy into training-subsidy for enterprises. On the other hand, people "choosing" the "apprenticeship route" are very probably choosing themselves out of other career or learning routes, increasingly based on academic standards.

Promotion of apprenticeship is always both pedagogical, political and social question. In fact, there were already before the 1990s a lot of pedagogical discussions on the importance of learning by doing, especially in real working environments in Finland. However, the recent public discussions on apprenticeship seem rather to function as legitimisation for the reforms and decisions than to reflect on their underlying political and social commitments and on the pedagogical appropriateness of these reforms for improving the Finnish education and training system. In our opinion, researchers of education should promote discussion about the pedagogical and social meanings of recent changes, providing deeper understanding on their origins and consequences on topics like

- What are the consequences for the career and educational options for those who choose the apprenticeship route instead of the school-based route in vocational education?
- What is the actual ability of working life to take the responsibility for education and training?
- What happens to the pedagogical and occupational quality of Finnish vocational education, if the role of schools and teachers will be reduced to responding to the short-term changes in industry and adaptation to the ideology of the free market?
- Why not strengthen and develop the existing system by analysing its strengths and correcting its faults, instead of rapidly substituting it by apprenticeship in Finnish vocational education?

A greater reluctance towards the promise of apprenticeship might be even more grounded, if we are also ready to hear the critical voices raised on apprenticeship from countries, where this form of vocational education has traditionally been of great importance.

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Chapter 5

VOCATIONAL EDUCATION AND TRAINING (VET) BETWEEN TRADITIONAL STRUCTURES AND MODERN DEMANDS

Rudolf Husemann

Chances and obstacles of modernisation in the craft sector in Germany

One of the well known specialities of the "dual system" of vocational education in Germany is the production of high skilled workers on a qualification level that is labelled as "Facharbeit". In the international discussion the Facharbeit is mentioned as one of the main reasons for the economical power of the country. Aside of ideological positions even big German enterprises as the automobile industry point out that the system of vocational education is one of the main factors considering the investment decisions to be made either in Germany or rather in other countries in which wages are on a lower level. Another one is the system of social partnership and wage-negotiations.

The terminus "Facharbeit" does not only imply a certain range of skills or a certain position in the employee hierarchy of enterprises. Moreover this implies the social roots (Herkunft) out of specific social structures, typical careers in general education, vocational education, further vocational education as well as in job careers and income structures (Drexel 1993). All this leads to a typical set of social character. The structure of skilled workers´ professions is one of the main constituting elements of

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the social structure in our country. The social division of work is a presupposition as well as a conclusion of this structure.

"Facharbeit" delivers us with a pattern of vocational education and corresponding skilled work, that influences widely the personal policy strategies of the enterprises and marks to a wide range the social policies, labour-market policies and others of the government and the trade unions. The standardisation of this system of education, work and policies has generated a system of VET, that should follow internal functions and demands. In this closed, stabilised and internal operating system we recognise the main difference of the profession orientated German VET and that of other countries, where VET may be connected closer either to enterprises or to the school system (Georg 1995).

The complexity of the system of VET in Germany did not only find its results in the positive picture of high qualifications for the economy, but as well in a long lasting debate on the crisis of the Dual System. This debate points out both the lack of self-regulation abilities and of public influence on this system. It refers to problems that are connected with more "dualities" in this system as are enhanced in the combination of practical training in enterprises and theoretical studies in vocational schools. Other dualities that are to be mentioned are different levels of certificates, differentiation between participation of men and women, practical and commercial subjects, producing sectors and trade sectors of the national economy and different types of enterprises as well. All these dualities and differences are linked together and produce certain chances and problems in the process of modernization of this system (Stratmann/Schlösser 1990:98).

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Based on the experiences and results of a research project[1] I will discuss some insights on the chances and the obstructions of modernisation processes that are connected with the relation and duality of the industrial and the craft sector in the German system of economy and its impacts on VET.

The duality of industrial and craft sector in developing the system of VET in Germany is one of the traditional and core problems of research and politics of VET. Just to understand some background of this subject it might be of some interest to have a short look back into the history of VET. In the last century and before the producing of qualifications on the level of high skilled workers (craftsmen in those days) was part of the craft economy. The typical way was a kind of apprenticeship in a master`s workplace and household as well, to get skills and education for working on one´s own responsibility after some years. Reaching the

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[1] The corresponding research project has the title „Regionale Berufsbildungs Informationssysteme" is supported by the Ministery of Economy, Traffic and Technology, Northrhein-Westfalia, and supervised by Prof. Dr. G. Kutscha, University of Duisburg. It is faced on information problems and -demands in different regions in Northrhein-Westfalia and on the development of information systems in the field of VET. Two methodological remarks: First: The results come out of expert interviews in about 40 institutions and enterprises in a „rural region" north of the „Ruhrgebiet", so the insights are not representative in the meaning of quantitative statistics. But of course they give valuable qualitative insights in opinions of masters of enterprises on changing conditions and qualification demands. Second: There are a lot of indicators to be taken into account when constructing dualities between types of enterprises and following conditions of practical VET, such as number of employees, types of products, productionn processes, sector of economy, region, facilities for basic and further VET etc. To make this more complicated, the device between industrial and handycraft sector is not excluding each other, which means that enterprises may belong to both sectors as members of the representing institutions (Kammern). The arguments of the following article stick to the traditional differences between industries and craft sector, which characterise the VET in the craft sector as follows: educational aspects

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status of a master craftsman was regulated by societies called "Zünfte", in which the master craftsmen of a town or region organised their professions. The moral and professional abilities of the master craftsmen were assumed to be the predictions and guarantees to fulfil the demands of a proper apprenticeship and development of qualifications for young men to become "Gesellen". The terminus "vocational education" in the German meaning of "Berufserziehung" refers in its roots to this practice of VET (Stratmann/Schlösser 1990:150), and has still a remarkable influence on the reality of VET in the craft system nowadays.

The upcoming industry in the last decades of the 19th century changed the situation for labour market, vocational careers and aspirations of VET completely. On the one hand there were demands on skilled workers in these industries to develop them to higher standards of technology and organisation, on the other hand there were strategies to mechanise work, employ people of low qualifications and keep wages on a minimum level - which means that there were no efforts of VET in this sector. This changed some years later when there was more consciousness about the needs of educated workers and of building up hierarchies in the employee structures in enterprises in order to cope with new demands of growing enterprises and markets.

In 1897 there were laws founded to differentiate between VET in industrial and craft sector, in which the permission for VET in the craft system was based on the master craftsman`s certificate, whereas in the industrial sector there were no fixed regulations about the qualifications of

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are based on the master role, small number of apprentices, one vocation, no special facilities for VET, dominance of work-related learning processes etc.

people involved in the tasks of education. From this time on the industrial sector articulated its growing interest in VET, concentrating on professional qualifications and the skills to use them in industrial work.

Both sectors of the economy followed these main priorities of VET up to now, with, of course, a lot of emphasis on the technological, political, pedagogical and scientific influences in the 20th century. The formal aspect can be seen in the differences in regulations of VET in both these sectors, but the social and economical dimensions are to be seen on a wider range. This means that possibilities of finding an adequate workplace for apprenticeship change according to structure of offers and demands in this field.

As the problems are complex and integrated the following argumentation is based on the general development of the number of workshop training places for apprenticeships and the changes between sectors of economy, the interests and demands of young people in vocational careers and changing conditions in the craft sector that underline problems of modernisation of the system of VET in Germany out of its internal regulation possibilities.

Overall decline of training places and increasing low cost portion

On the whole there is a remarkable decline to be observed in the willingness of enterprises to offer workshop training places for apprenticeships. During the economic crisis from the end of the 80ies up to now the means for VET spent by the enterprises went down drastically. This re-

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fers to a great amount to the enterprises in modern, high technological industries, especially of middle range size (approximately between 100 and 2000 employees). To most of these enterprises it seems to be cheaper to get their skilled workers and employees in mid range qualifications from the labour market or out of technical schools and colleges.

In the survey approximately only one third of the enterprises that employ skilled workers take an active part in VET. This depends on the partly highly specialised production processes, in which there are no possibilities to offer the wide range of skills in the apprenticeship process that is characteristic for a special vocation. Another reason may be that of the regulations prescribed by law, but last but not least as well by the economic calculations of the enterprises.

Following these results one big problem is to be seen in the fact that high cost workshop training places are to a greater amount reduced than low cost training places. This leads to a development in the whole reduction process that enlarges the amount of low-quality training places and those in parts of the economic system that can afford low cost training. As there is a general classification of enterprises in industrial enterprises and craft enterprises we can observe that there is a remarkable drift of training places from industry to the craft system. The following chart shows this total reduction from 1985 to 1992 and gives an idea of the changing proportions in several sectors of the economical system.

Table 1. Apprentices total and divided according to economic sectors

Total amount:	1985: 1.831.300	
	1994: 1.281.000 (1.579.700 incl. NBL)	
	ca. part in %	**Trend**
industry	50 - 42	↓↓
craft sector	32 - 40	↑↑
agriculture	3	↓
public service	5	↓
free lance professions	9	↑
home economics and merchant navy	1	

source: GSD 1995/1996, p. 112, 114

(NBL = Neue Bundesländer)

Declining interest of young people in VET

One of the main topics of the pedagogical and political debate on the crisis of the dual system is the observation of the reclining interest of young people in VET. At least corresponding to the decline of the number of training places there are less young people who decide - and get the chance - to start their vocational educational and job career as apprentices in the dual system. This is one of the effects of the expansion of the educational system in total, which means especially an expansion in the field of higher general education (see the following chart No. 2). Experi-

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ences in the past confirm that Germany follows the path that other industrial nations already have stepped on: This is the phenomena of the higher social and material rewards of certificates that are acquired in the system of general education compared to those acquired in the system of vocational education (Lutz 1991), the risk of getting unemployed after leaving the educational system is comparable but less when having been in employment for a certain time. The chances to start a career as an free lance or to start a small enterprise on one´s own are much better out of a position of higher education.

This means that there is a trend to attend the grammar schools and to get a certificate for studies in universities and other institutions on the highest level, while the secondary form and especially the "Hauptschule" (10 years) decrease to a low level and are looked upon as low quality certificates. The result of this is the decreasing number of beginners in VET and an increasing number of beginners of academic studies.

Table 2. Apprentices 1st year and undergraduates 1st term

	apprentices 1st year	undergraduates 1st term
1985	544.100	82.500
1986	534.100	84.700
1987	507.700	92.400
1988	471.800	98.200
1989	444.000	99.900
1990	427.000	109.200
1991	426.200	110.700
1992	476.300	108.400
1993	478.200	105.600
1994	475.000	100.900

Source: GSD 1995/1996, p. 116, 142

Uncoupling of traditional paths of education and occupation

One of the most remarkable phenomena of this development is the uncoupling of traditional paths and steps of general and vocational education. Therefore we find a wider range of qualifications with those people who start an apprenticeship in the dual system, the range of age becomes wider and the amount of young women in this formerly mainly male sector of education came up to 43 % in 1989 (41 % in 1994, Berufsbildungsbericht 1996:57). This diversification in the beginners

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structure corresponds with a diversification in the supply of training workplaces, as mentioned above.

Those young people with best qualifications - who decide against an immediate start at the university after leaving grammar school - apply for the small amount of high cost and high quality training workplaces. But the chances of obtaining a place that meets the personal desires are not very high: For example there were 168 applications registered for two places in a small bank in a rural village in our investigation region, while a small craft workshop in the same place could not find a candidate for an apprenticeship in metal mechanic engineering. Many of this group may succeed in their search for a well outfitted training workplace. But sooner or later they recognize that they are moving into a cul-de-sac, into a blind alley. That is a consequence of the personnel policy strategies of this type of enterprise which tend to put graduates from the system of advanced studies in the positions in the mid-range field of the personnel-structure, while master craftsmen and technicians are more or less eliminated in new concepts of running enterprises as are well known as lean management and lean production. So many of these well qualified young people cut off their contract of apprenticeship and start studies at universities and technical colleges. The national numerus clausus, that is: the regulation of the restricted entrances in several studies, is one other reason why young people choose the vocational education after finishing grammar school. They keep to it for a while and change to university as soon as they get a place for their first-choice-studies.

Others of this group of best qualified school leavers finish the apprenticeship, because they are not accustomed to give up an education they once decided to complete. They have only poor chances of continuing their career in entering a further vocational education, as the costs are high and the social and material benefits by getting into adequate positions are poor. Because of this many of them start studies at universities or technical colleges afterwards.

As the reduction of the amount of vocational training workshop places is to be registered mainly in the upper level, some of the best qualified school leavers have to be satisfied with the middle or low range places. Here they will be more dissatisfied with the conditions and either resign or change to other education fields or jobs. In obtaining these places they get into competition with the group of the mid and low qualified school leavers. This group has hardly any chance to get into the high level training places. They are looking for places in the low cost sector and in professions and enterprises which are assumed to deliver only small chances of job careers. In their search they may succeed in getting places, but sooner or later will become aware of high qualification demands in these places as well and will find themselves in a position either to give up a proper job career or start learning both in the field of general and vocational education with great efforts.

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Changes in the development of craft enterprises and qualification demands

Let us change the point of view towards the conditions of VET in the field of low cost education and in the craft system at this point. And here we will leave the public debate on the crisis in the dual system and turn to some results that come out of empirical studies in craft enterprises in a more or less rural region near the "Ruhrgebiet".

The small and medium size enterprises and especially the craft enterprises have to solve their staff development problems and corresponding qualification demands under the conditions of having problems to find high qualified young people to start an apprenticeship and keep them to their enterprises after finishing it. Craft enterprises are up to now typically concentrated on one type of craft. The enterprise is run by a master craftsman who has the permission for vocational education in his profession. In the traditional way the apprenticeships get a 3-years vocational education in this profession, including all those key-qualifications the master considers to be important and useful for the workshop tasks that will be following afterwards as a skilled craftsman. There are to be mentioned: obedience, diligence, punctuality, only to count up some of those virtues that are still of great importance within the apprenticeship in the craft system. The technical and practical qualifications are - more ore less - learned on the job, and the so called key-qualifications as well, while the theoretical part is covered by special vocational schools in the German dual system. But the traditional way of vocational education meets with remarkable changes in the labour and organisation in craft enterprises.

This follows developments in the technical, ecological and economical fields. Obviously these fields correspond with each other and can appear in special forms in different enterprises, but sum up most of the conditions which show that modernisation of vocational education is an urgent topic but hardly to be solved by means of internal resources of this economical branch itself.

Many of the craft enterprises use and produce, install and repair modern technological equipment. This takes place in the field of all crafts around house building, other crafts of construction, car service and repair etc. This means - considering the low grade of labour division in this type of enterprises - that the skilled workers have to cope with these new technologies and their application in a wide variety.. This cant be looked at as a marginalia. The enterprise that wants to survive on the market has to satisfy the customers` desires on low costs, and in the installation and service of this high-tech equipment - as for example heating systems - the skilled workers meet customers with high abilities and lots of time to study instruction manuals, who are to be convinced that craft labour is better and cheaper than trying on their own. At least it is a big problem to do the service on those technological products that are readily installed but become complicated when in need of repair. But there is the danger of loosing all the service jobs to producing industries with own customers` networks if the necessary qualifications cannot be obtained or developed within the conditions in small enterprises.

In the ecological field we can observe a very fast development as well. For example there is a trend towards low-energy-houses and pollution reducing products and services. These are fields in which craft enter-

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prises have to adapt knowledge from other systems such as industries, universities or research & development. This seems to be completely different from former times, when the craft system produced its own skills more or less out of an internal development and vocational education. We are still far away from a transfer or from communication systems which link the technical and ecological "know how" in the science based industries and surrounding institutions to the craft enterprises. Both sides have big barriers to overcome, and the first steps that we can observe are taken by the sons of craft masters who go to a technical college after finishing an apprenticeship and then return to the enterprises as junior managers. But this is far away from a transfer of the knowledge they need for this kind of business. On the other hand, the enterprises are unable to produce the knowledge and the skills out of their own system of vocational education, as this is largely based upon the traditional set of qualifications. There is no doubt about the fact that the politically initiated modernisation of the curricula - as the realisation in the enterprises is really difficult and not too far developed - cannot cope with these problems anyway.

While the modernisation processes are well adapted in the technological aspect, this is not the same in the ecological one. This may be one reason for the fact that the vocational education tends to take this technological aspect more into consideration than the ecological aspects.

The third aspect of these changes to be pointed out can be summed up with market-related economical dimensions. What we found in our em-

pirical research were tendencies of "specialising" and "diversification" and of enlarging the geographical borders of the markets.[2]

The trends towards specialisation and diversification turn out to follow new customers demands. Specialisation follows the trend to higher and superior performances in products and services. In this way we find that small enterprises do not only perform simple installations of technical equipment (electrical, plumbing, tiling) but offer architectural and other services as well. These enterprises occupy technical staff to draw sketches and coloured plans in forehand and try to concentrate all their efforts on fulfilling their customers dreams of a perfect home. As many private houses are left to grown up children and are modernised in this process, there is a remarkable market to be considered.

Diversification follows the idea of "all-in-one-hand" services. Here we find many enterprises that leave the traditional way of keeping to a certain profession and follow the way of specialisation, but take other professions into their programme. As far as there are industrial or commercial customers demands to be fulfilled, this trend is more or less a kind of pressure, because these customers usually want to deal with only one enterprise when making contracts in bigger projects. When working for private customers the craft enterprises take the chance to make wide-range offers as building/construction technology is growing together and "all-in-one-hand" service can integrate different crafts/professions easier.

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[2] For the following explanations allow me to keep to the professions around house building as an example, according to the dominance of this sector of craft enterprises in the investigated region.

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The third moment of changes that is to be to mentioned is the enlargement of the geographical borders of the market. This means that many of the employees may be out on field construction jobs, probably in foreign countries, that the enterprises on the one hand have to recognise and cope with strange and different instructions, regulations and laws, on the other hand have to develop logistics of transport, service and personnel management to an international standard.

These changes lead to new organisation concepts in the enterprises. Here we find different solutions. Some enterprises follow the path to enlarge the number of professions and to integrate them. As a typical way the enterprise starts with the employment of a master craftsman and another skilled craftsman of the same new profession and continue in expanding and diversifying the personnel staff this way. To cope with the new demands the enterprises are going to employ people with qualifications on the level of technical colleges and universities as well. This kind of personnel strategy is found in enterprises where the master has certificates of the same level, whereas in those enterprises where there is a traditional master craftsman in the leading position there are great obstructions in this aspect. Another way is to co-operate with other enterprises (some only having 2-3 employees) on subcontracts. Often we find that the organisation and customers administration are highly developed and managed by computers, the same as we find CAD in the development departments and CNC-machines on the shop floor.

Changing qualification demands

All these developments and changes affect the qualification demands in this type of enterprise to a great amount. Although the vocational education in this field produces craftsmen and skilled workers on a high qualification level, there are some further demands to be mentioned:

- the technical qualifications have to be on an industrial standard as there is comparable equipment in use,
- the general and professional qualifications have to be developed to a level that co-operation with workers from other professions and with higher formal levels is possible,
- the social qualifications have to be developed to a level that meets the strategies strictly to follow customers demands,
- the other key qualifications have to be developed to a level that ensures independent acting in the labour process,
- here and there foreign languages have to be mastered (The neighbourhood to the Netherlands is looked on as a big problem, as there is a remarkably higher level of foreign language knowledge throughout the population than in Germany).

These remarks show that the change of qualification demands in the craft labour field does not follow the former industrial path of growing division of labour processes. On the other hand they cannot be described as identical with the modern development in the industrial sphere, because in this field the demand is less of an integration of formerly separated labour processes but more of the upgrading, diversification and

increasing of elements of general education as well as of technical and key-qualifications.

Obstacles of modernisation in VET

It seems to be obvious that the small enterprises have great difficulties to meet these high and growing qualification demands in their VET. To speak about obstacles in the modernisation of VET that are to be considered, there is to be looked at those conditions in these enterprises and the surrounding economical and educational area that restrict modernisation within the system itself. There are several arguments to be pointed out, some of them have already been mentioned before.

As these small enterprises have only few chances to get higher qualified school leavers as apprentices they have big problems in enlarging their general qualifications. First of all there is the opinion to be observed that the system of general education is responsible of this and should undertake more efforts to bring the pupils to a higher level. This opinion does not take into account that those pupils with higher levels wont decide for an apprenticeship in this type of firm. Many of the master craftsmen share the opinion that general education was on a higher level in former days. We assume that this opinion may be the result of some lack of memory, or glorify „old days", but anyway any kind of comparison over a period of 20 years is not easy. In fact it is to be accepted that the demands concerning cognitive knowledge are increasing in all kinds of jobs, at least in those where we find integration as a characteristic of labour organisation. This is a well known trend in big industries but takes

place in small enterprises as well and is traditionally based in the craft system. There should be the chance to improve general qualifications in the vocational schools, but the master craftsmen do have great reservations to send their apprentices to these schools for a second day in the week, but surely they cannot fulfil this part of education during the vocational training inside the firm or on the job.

The ability to cope with the technical and practical qualification demands should be the traditional power of the vocational education in small enterprises. But as there is a variety of qualifications in different crafts needed, this cannot happen in the existing structures, in which most enterprises in the craft system are permitted to do the vocational education only in one profession, the one they are registered in the craft role and the profession the master belongs to. The way this problem is worked out is that craftsmen of other professions are employed. This leads to a mixture of professional qualifications, which is quite untypical up to now. Problems may result out of the lack of experience of working together, and out of hierarchies of crafts that make subordination and organisation of work difficult.

Whereas the industries have a wide ranging system of in-house training and good connections to external VET or further vocational education, there is a big lack of this in the craft system and in the belonging enterprises. They count on short-term training offered by firms that are offered in combination with products, software or technologies. This kind of further vocational education does obviously not meet the needs of personnel development to get a staff of high skilled craftsmen whose qualifications increase with the development of the enterprise. Those

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who are busy on further vocational training do this to improve their income and often change into the industrial sector. It should not be left unmentioned that the working and learning conditions in craft enterprises usually are not favourable for parallel vocational education, as this might be in industrial firms.

The qualification demands on high grade positions such as technicians or engineers cannot be produced in the system itself. But it is difficult to get people of these qualifications to be interested in working here. The reasons have been mentioned before. An exception is to be found in the positions of the owners. While this was the major position for the master craftsmen we find more and more young engineers as owners.

Solutions?

The solutions to be found seem to be poor compared with the problems. Quite frequently we find that young people undergo two apprenticeships, either to combine two technical professions or a technical and an economical one. This seems to be very uneconomical in the view of small income over more than six years, and is against the general opinion that the entrance into the job should be in the early years of life; and it gives us a sign that the idea of a single profession as a couple of qualifications does not meet the qualification demands not even of these enterprises in which these qualifications are produced. Of course there are further vocational training such as for master or for technician level which are being attended, but on a low amount. Those young people who have finished their apprenticeship and want to upgrade go to technical colleges

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or to universities as they have learned about the "meritocratic system" (Lutz 1991) and the widespread options they will find after finishing these studies. Not many of them will turn back to the type of firms they have left. Besides this we found that the demand for widespread technical qualifications (qualifications that combine technologies from different professions) was met with the employment of craftsmen of "ancient" professions such as "agricultural machinery mechanic". But there are only very few apprenticeships in unfashionable professions like this.

Why not find ways of getting the qualifications needed on the labour market? Of course there is a large labour-market and millions of qualified unemployed people, but the enterprises hesitate to look for new personnel in this field, because they have big doubts about the working abilities of those who come out of unemployment. They hesitate to employ craftsmen who have worked in the industries as well. The main arguments for this hesitation are that those who worked in industries have low qualifications in organising their own tasks and workshop place as well as in improvisation, have no experience in social contacts with customers, low responsibility for their jobs. That is said to be the effect of industrial work where there is no problem for a substitute to be found e.g. if somebody gets ill and stays at home, and the technical and social surrounding of each workplace is organised by the enterprise. Not very often mentioned but well known by all experts who deal in this field - and especially by the workers - is the fact that wages in industry (ruled by trade union contracts) are on a remarkably higher level than in the craft system, so there is a big problem of motivation if craftsmen have to go the way "down" - surely not the way "up".

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Let us turn back to the beginning and compare the conditions of VET in the craft system with those in the industrial system. In the later we find the high qualified school leavers, a comparable better system of further vocational training, higher wages, comfortable working conditions and so on. A big problem is that both systems have similar regulations on VET, but different functions and exchange processes in this field. There is a remarkable separation of the quality of vocational education to the benefit of the industrial system, whereas the amount of workshop places for apprenticeship decrease in industry and increase in craft system. At the same time we find an exchange process from the craft system into the industries, while only very few workers go the opposite way. It is not surprising that the craft system is under great pressure to ensure that the needed qualification demands are to be fulfilled, while the industries get skilled workers if they need and give them the needed qualifications by further vocational training.

Besides these problems and developments the core of the public discussion in this field focuses on the relation of offers and requests for workshop training places without any demanding account as to the quality, profession or belonging to one of the two systems. The other focus that is to be recognised is concerned with the equivalence of general and vocational education, a discussion that is as old as the VET itself and since that time declared to be a political goal without any obligation. So there will be something to be done to improve and modernise the VET system to find a balance between the interests in financing it and demands for the supply with high qualifications on the level of "Facharbeit" in the industrial sector as well as in the craft sector.

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Chapter 6

THE PATHWAY-APPROACH TO VET: THE CASE OF SWITZERLAND

Philipp Gonon

Introduction

From 1993-1995 I was a co-author of a study on Vocational Education for Switzerland, which was based on criteria developed by an OECD-group called „VOTEC". The main issue was the changing significance and role of Vocational and Technical Education and Training (VOTEC) especially by analysing and comparing data of offered pathways and the choices of youngsters in different age groups in different countries. In the following paper I present some results of the Swiss study as well as some reflections about this approach.

In most OECD-countries we can observe endeavours to strengthen the „attractiveness" of vocational education. The basic principle in Switzerland is still the strong division between the vocational and academic track. Even new reforms do not challenge this two-pathway-model but try to enlarge and upgrade the access to higher education for apprentices by creating „Fachhochschulen". A brief history and a description of the pathways and programmes of upper secondary education show that reforms of the educational system are on the agenda.

1. Pathways as an approach to describe changes in the educational system

In the last decade a lot of changes in vocational education happened. Especially international organisations like the World Bank and the OECD have showed interest to analyse new developments by comparing different countries. The aim is to find criteria for vocational education policy in Europe and in the Third-World-Countries (Middleton 1988). Especially the apprenticeship-model, and its link to work and industry gained more international interest (Durand-Drouhin/Romani 1994). However, it was quickly apparent, that on an international level there is not much comparative knowledge about vocational education. Moreover, even policy makers, e. g. of German speaking-countries like Switzerland, are not well informed (by sound data) about their own systems. The aim of the VOTEC-project was to gather some comparable data on an international level and to get a view of vocational education reforms in different countries. That is why - as a first step - programmes of vocational and general education had to be depicted.

The „pathway-perspective" combines a quantitative evaluation of the importance of vocational education and training to changes in young people's educational choices. „The end of compulsory schooling is, by definition, a time of choice. Students choose whether to continue education or drop out. If they continue, they choose among different lines or options" (Raffe 1994, p. 41). Comparison of data from different years within a country allows to give a picture, how vocational and general education is developing. For example, a common trend observed in most countries is the increase in the duration of studies. Participation in apprenticeship is declining in comparison with school-based programmes at the post-compulsory stage.

In the following I will sketch, after a short historical introduction, the educational programmes available in Switzerland and present and discuss some data derived from the pathway-evaluation.

2. History of the Swiss apprenticeship-system

It was the Swiss „Gewerbeverband" (an association of small firms of the arts and crafts sector) which realised in the 80s of the last century, that its members were not competitive any longer. The uprising Swiss industry with low skilled work on the one hand and the products of countries like France, Austria and Germany on the other hand had much more success even in Switzerland. To restrict free trade was one possibility discussed, but it was only seen as a valuable solution by a minority. The result of many long discussions was to further the arts and crafts trade by strengthening the development of educational institutions for vocational needs. In 1884 a first funding act was enacted, which allowed the federal authorities to fund vocational „Fortbildungsschulen" (continuation schools) and other institutions like the „Lehrwerkstätten" (public workshops). The standards of apprenticeships and the assessment of tutors were regulated by the „Gewerbeverband" itself. In 1930, however, the first legislation on a national level was introduced. Industrialists' and workers' associations began to show interest in vocational education needs as well. The legislation of 1930 (Bundesgesetz für berufliche Ausbildung) defines the professions in arts and crafts and in industry which are regulated and monitored by federal authorities. It was now compulsory for every apprentice to frequent the school courses for one day (due mainly to the pressure of the workers associations).

The „take off" of the predominant dual system in Switzerland and its dominant role for most youngsters after the compulsory school occurred after the Second World War. In 1963 there was a small reform of the legislation of 1930. The last reform of the federal law passed in 1978 (Berufsbildungsgesetz BBG). This law regulates the education in a majority of occupations.

3. Available Programmes and Pathways

Vocational education in Switzerland begins after the completion of compulsory schooling, i.e. nine years of primary and lower secondary education, most frequently at the age of 15 or 16. It then continues to higher non-university education. Chart 1 shows the programmes for the upper secondary and the tertiary levels, which are also the building blocks of pathways through the system.

Chart 1: Programmes at the upper secondary and tertiary levels of education

	Upper secondary education	Tertiary education
General Education	- School preparing for the university entrance certificate (maturité) - Intermediate diploma school - other general education schools	- *University*
Vocational education	- "Berufsmittelschulen" and Maturité professionnelle* - Vocational schools - Apprenticeship - *Basic vocational education* - *Teachers' education*	- Higher professional schools (Polytechnics or "Fachhochschulen")* - Higher vocational schools - Technical schools - Preparation for professional examinations - Other tertiary vocational education - *Teachers' education*

Note. The programmes in italics were excluded from the study, even though they involve a strong element of vocational training.
* Programmes introduced by current or future reforms: the maturité professionnelle in 1993, the law dealing with higher professional schools (Polytechnics or "Fachhochschulen") is planned for 1997.

The Swiss system consists basically of the two distinct pathways of general and of vocational education, which traditionally involve very few crossing points. The recent reforms of vocational education involve the inclusion of more general education within vocational education and do not aim at making the whole system more permeable.

3.1 Upper secondary general education

School preparing for the university entrance certificate

The Swiss "Matura"/maturité is one of the most valued certificates on the upper secondary level. Its broad requirements in general knowledge allow access to all universities and all faculties ("allgemeine Hochschulreife"). The education is exclusively school-based. At the time of writing, a reform of the certificate is under way. Changes include the elimination of the differentiation into types or at least the reduction of the number of types, the restriction of the maximal duration of years of schooling up to the certificate to 12 years and the reduction of the minimal number of subjects included in the final examination from 11 to 9. The reform however will only slightly "modernise" this traditional and in most cantons very elitist institution. The entry requirements in most cantons include a minimum average in marks and the successful passing of an entry examination.

Intermediate diploma school

The intermediate diploma schools have a specific profile below the "gymnasiums" and provide a two to three year course certified by a diploma in mainly general knowledge (especially languages and similar subjects as offered in a "gymnasium"). They are full-time schools, often linked to a traditional "gymnasium", very often the organisational descendants of former "higher girls' schools", and until now not very clearly situated between the vocational and general education route. The majority of the pupils in this programme are female, and will through this diploma school gain access to education in professions like teaching, nursery-school teaching and health-care. With the introduction of the "maturité professionnelle" (see below) a new role for these schools as a parallel pathway to higher education is foreseen.

3.2 Upper secondary vocational education

Apprenticeship

The apprenticeship is the predominant form of vocational education all over Switzerland. It usually involves three learning sites: the factory or business place for three or four days, the vocational schools for one to two days a week and the introductory courses (a full-time schedule of about 12 weeks either in a special centre or in a school or sometimes even in a factory with a special workshop). That is why the Swiss system is often called a "trial" (as an extension of the dual) system. We consider the apprenticeships to be a full-time education.

Apprenticeships last from one to four years, the majority lasting three to four years. The certificate is a solid basis to find a qualified work in industry and trade. It is also the basis for further education and training within the enterprise or a first step to higher professional education. Until recently, apprenticeships were the foundation of quite long careers within the enterprise.

Vocational schools

Most full-time vocational schools lead up to certificates which are equivalent to those acquired in apprenticeships in comparable occupations.

The commercial and other full time schools

Commercial schools provide a full-time programme for the business sector. Some are linked to a "gymnasium" with an economic focus, others are private schools with specific schedules. The normal duration is two or three years. Some programmes can be completed besides work. Other schools exist mainly for professions in health care, teaching, social work and music education.

The "ateliers d'apprentissage"/"öffentliche Lehrwerkstätten"

This kind of vocational education was developed in the 19th century, mainly in towns like Zürich, Winterthur, Berne and the French part of Switzerland. As in France, Belgium or smaller countries like Baden and Württemberg such institutions aimed at educating an elite of workers. Until today these full-time vocational schools with workshops are until today of some relevance for professions of the clockwork, metal industry and dressmaking .

The "Berufsmittelschulen" and the maturité professionnelle/-"Berufsmaturität"

Since the seventies "Berufsmittelschulen" offer supplementary general education for apprentices. In the year 1993 a new programme, called "maturité professionnelle" ("Berufsmaturität") was introduced. It is based on a change of the "Ordinance"("Verordnung") of the "Berufsmittelschulen".1 The aim is to ensure access to higher education by a newly defined curriculum. Besides the traditional apprenticeship young people will obtain a certificate, which is called the "Fachhochschulreife", roughly the entrance certificate for the higher professional schools2. Four types of "maturité professionnelle" are realised: a technical, a commercial, an artistic "Berufsmaturität" and another one for trade. In 1994, the technical and commercial types already started their first courses.

By the establishment of the "maturité professionnelle" the already existing "Berufsmittelschulen" are upgraded. The "Berufsmittelschulen" are branches of

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1 The ordinance itself is based on the law of 1978 and the BBV (c.f. 3.1). Ordinances are legislative means for implementing the law, or some parts of it.

2 Which will be upgraded to "Fachhochschulen" at the same time.

the vocational school. They work under the same roofs as the traditional vocational schools of the apprenticeship system. The apprentices take supplementary courses in for a second day each week. The students of the "maturité professionnelle" in a 4-year apprenticeship will have a course combined of 4500 lessons within the enterprise (in addition to the normal work), 1440 school lessons in vocational subjects and 1440 lessons in general subjects. General subjects include the mother tongue, foreign languages, mathematics, natural science and more vocationally oriented courses in for instance computing, physics, ecology or economy. Students of the "maturité professionnelle" will have 600 to 1000 more lessons in general subjects than "normal" apprentices with the same occupation.

The organisation of the supplementary courses is regulated in an very open way. Different solutions on a local level are possible. It is even possible to acquire the necessary general subjects in a one-year schedule after a three year apprenticeship. The entry requirements are not yet clearly regulated. The stated aim of policy makers is to have 10-15% of an age group in this programme. The success of the measures, however, depends upon the successful completion of the ongoing reform of the higher professional institutions.

3.3 Programmes at the tertiary level or higher professional level of education

Universities

In 1994 the Swiss university system included seven major cantonal universities, two federal polytechnical schools (ETH) and one "Handelshochschule", a university specialising in economics and business administration. The entry requirement is normally the possession of the "Matura" or "maturité" (allgemeine Hochschulreife). Only a small number (compared with other countries) - about 7 percent of a cohort - complete this route.

Higher professional schools - Polytechnics or "Fachhochschulen" (Hautes Ecoles Specialisés)

In 1996 a new legislation passed in order to upgrade some of the higher engineering schools and the higher business and administration schools to "Fachhochschulen". Other schools of the higher professional sector aim at the same option. The requirements for changing a higher education institution to a "Fachhochschule" have not yet been clearly spelled out for all schools and the total number of such schools will probably be limited to 10 to 15 schools at the most. A crucial point is the establishment of a three year programme. The new pathway designed to lead to this new kind of higher education is the "maturité professionnelle". It is however not possible, that even young people who have completed the traditional "gymnasium" get access to such schools, provided they are able to complement their studies with practical work.

Higher Professional Schools

The numerically most important schools are the higher technical (engineering) and the higher business and administration schools. Other higher professional schools include colleges for agricultural engineering, domestic science,

industrial design, social work and education. These schools generally offer three year full-time courses and require a three or four year apprenticeship as an entry condition.

Technical schools

On a medium level there are schools for technicians, for business, for tourism and for health care, which offer two year full-time courses. The entry requirement is a completed three or four year apprenticeship.

Preparation for professional examinations ("Berufsprüfungen" and "Höhere Fachprüfungen")

Special courses of usually some months to some years part-time duration for the preparation of masters' or trade examinations are offered by various institutions including professional associations, vocational schools and private market oriented schools.

Other tertiary vocational education

Aside from the comparatively well-regulated sector described so far, there exist a plethora of vocational courses on the tertiary level, all requiring a completed upper secondary education and leading to some specific occupation.

The diversity of forms, contents, duration and intensity makes this part of the education system with not very clear boundaries between vocational education on the tertiary level and continuing education and training not very transparent. The small presence of state control and regulation for many of these institutions is part of the explicit policy of subsidiarity for the further education and training sector: the state will be active only when the free market will no longer deliver sufficiently.

4. Some features of the Swiss vocational system based on pathway-perspective

In 1993, 65% of all Swiss people over 25 years achieved an apprenticeship-certificate. (Men 74 %, women 55%). In the German part of Switzerland this was 67%, and in the French part 53%. On comparing different age-groups one can find big differences as well. About 50% of elderly persons, aged 70 had run an apprenticeship, whereas 75% of the people between 25-29 have a certificate.

Figures in Table 1 and 2 in the appendix give an impression of the quantitative stock in different occupations and of the different length of programmes all over Switzerland. In the year 1992/93 only 17% of all Swiss had completed general education on a post-compulsory stage. From these 5 % were equipped with a vocational certificate as well. On a tertiary level, 16% of the Swiss, who are aged over 25, have got a certificate. Only 5 % have a university degree, 11 % a certificate from higher vocational education.

From 1980 to 1993 the attendance on upper secondary level has raised. In the main part this is due to the increase in female participation (Table 3 in appendix). In the year 1992, 80% of the youngsters, aged 18, stayed in education, but only 25% of 19 and 20-years old men and women. Between 1980 to 1993 the entry rate in upper secondary education for general education changed from 22% to 31%. On the other hand the vocational education lost some importance, but still obtains about 70 %.

Within vocational education we can observe a trend away from industry and arts and crafts and a move towards service professions. That is why the

percentage of three year apprenticeships have risen and industry-based four year apprenticeships have declined. The gathered data show that in a real short time there is an enhanced trend to general education. Besides, even within vocational education, professions with more school-based education are preferred.

In relation to different occupational groups (Table 4 in the appendix), the four largest groups - office-work, metal-working/machines, health-care and sales - have retained their relative rank up to the late eighties. During the last years, vocational education in health care has overtaken "sales" in quantitative importance. Since both occupational groups are predominantly female, this change might indicate a movement towards more prestigious occupations among women. There is a movement towards tertiary functions: occupations having to do with administration, planning and communication (office work, draughtsmen and technical occupations and graphic industry) increase. The traditional industrial occupations found in the occupations of metal working and machine industry, food industry and wood industry as well as the occupations relating to the building trade tend to decline. The traditional people-related service occupations in the fields of health care, sales, restaurant and hotel trade and cosmetics, hairdressing and beauty care have tended to increase during the first years of the eighties, but - with the exception of the health care occupations - have lost some apprentices since then (Table 4).

The occupational segregation by gender, which is one of the main characteristics of the Swiss working-life, is visible in the figures for the new entrants in vocational education. With few exceptions, the occupational groups are and have been dominated by either men or women. There has been little change in these distributions in the past years. Given the social change in the

same decades, even remarkably little change! The stability of the large groups tends to hide the changes on the level of the single occupations. Especially in small occupations, the number of new entrants each year tends to vary considerably.

The rate of first entry to upper secondary education gives an indication, of how many people of a cohort enter upper secondary education in a given programme. Among the first entrants of 1993/94, vocational education was less popular than among all entrants (Table 5 below). The relative attraction of general and vocational education programmes since 1980 has shifted among the first entrants to an upper secondary education: General education is on the rise, while vocational education has declined. These general tendencies are valid for all groups, but they do not diminish the quite pronounced differences between the genders and the language regions. Starting one's upper secondary education in vocational education is still very much more common for men and in the German-speaking regions.

Table 5. First Entry in General versus Vocational Formal Education, by gender and language region, 1980/81 and 1993/94 (in percent of the cohort)

		1980/81	1993/94
All	Upper secondary Education	90	92
	School preparing for the University	14	19
	Other general education schools	7	10
	Vocational education	69	64
Men	Upper secondary Education	96	94
	School preparing for the University	15	19

	Other general education schools	5	7
	Vocational education	77	68
Women	Upper secondary Education	84	91
	School preparing for the University	13	19
	Other general education schools	10	14
	Vocational education	61	58
Men in German speaking cantons:	Upper secondary Education	96	94
	School preparing for the University	13	15
	Other general education schools	3	5
	Vocational education	80	74
Men in French and Italian speaking cantons:	Upper secondary Education	94	96
	School preparing for the University	21	27
	Other general education schools	5	11
	Vocational education	66	59
Women in German speaking cantons:	Upper secondary Education	83	90
	School preparing for the University	10	15
	Other general education schools	11	15
	Vocational education	62	60
Women in French and Italian speaking cantons:	Upper secondary Education	90	97
	School preparing for the University	22	33
	Other general education schools	19	19
	Vocational education	49	45

After the first entry, some of the students stay on to graduate in the same programme of upper secondary education, others change programmes without completing the first one attempted and still others return to upper secondary education after an interruption of the educational career. Of the new entrants in vocational education, between 7 and 13 % drop out during the course of the programme. The lower figure is the drop-out rate between the first and second year of the programme, the higher figure is an estimate for the whole course of a four year programme. These figures are based on the comparison of the number of apprentices in successive years of a given programme. They give no indication of the further educational career of the drop-outs.

Longitudinal studies in the cantons Zurich (1974-78) and Geneva (1980-1985) found out that 8 % of those who began an apprenticeship in Zurich and 12 % in Geneva leave the vocational education system altogether. The Geneva study also indicates that another 36 % of the apprentices experienced some change in their apprenticeship contract, be that change of employer (12 %), change of occupation (12 %) or prolongation of the duration of the apprenticeship (12 %). Whether these figures represent an extreme typical of Geneva or the national average, is hard to decide in the absence of other studies covering other regions.

Recruitment to tertiary education, especially vocational tertiary education has increased considerably. From 1985 to 1992 it has risen by 5 percentage points to 27% in higher vocational education for the whole population. University entrance has increased by 3 percentage points to 13 %.

If we look closer, who is embarking on the upper secondary level, we can see that one third comes from the compulsory school-level, which represents basic

demands. For them there is only the option of a vocational education, or exactly, of certain vocational education tracks. The other two thirds, come from the compulsory school with enlarged demands. They can choose between a vocational or a general education. Half of this group decides for a vocational track, half for a general track. Exactly within this large group there is a competition between vocational and general education. Swiss policy makers have realised that they have to strengthen the attractiveness of the vocational pathway especially for this group. From this point of view the creating of a "Berufsmaturität", a programme with the possibility of further studies seems to be the right measure.

It should be noted that in French and Italian part the trend to general education is stronger: this means that choosing general or vocational education is also linked to a cultural factor. In the French and Italian part of Switzerland with much higher rates of youngsters opting for a general education, the vocational education pathway is only a „second-best" solution. From the French- and Italian-speaking youngsters who complete vocational education, 14 % first started in general education. In the German part this rate is only about 1 %.

In the area of vocational education there are typical profiles. In 1993, 16 % of male youngsters and 16 % of female youngsters accomplished a „Matura" (School preparing for the university entrance certificate). In the vocational track 72 % of young men got a certificate, but only 58 % of women. It means that women have a similar representation on general education, whereas they are less represented in vocational education. Swiss German-speaking male youngsters are over-represented in vocational education, have the most stable careers and continue more often their education (on a tertiary level). Women, on the contrary, especially from western and Italian part of Switzerland are under-

represented, have less stable careers and higher drop out quotas and stop after the upper secondary level.

The findings discussed here show clearly that a reform is necessary. The women and some regions have to be integrated more thoroughly in vocational education. Generally, vocational education has also to be upgraded, if the importance of vocational education is to be maintained. If in future vocational education will be only a „second-best choice", the apprenticeship-model will decline furthermore. There are some signs in this direction. One can see as well, that if the apprenticeship-model loses its attraction, there is no alternative for some segments of youth. Many youngsters in the French and Italian parts of Switzerland, instead of being integrated in further education like in the German part, will have no opportunity to develop their skills and knowledge.

5. General Conclusions

The approach describing programmes and pathways can be an interesting way of presenting new evaluative quantitative data. The general trend found in OECD-countries that apprenticeships decline and school-based education gets more importance, can be observed in Switzerland as well. All the same, the data also show, that the Swiss educational system including vocational education is quite a stable system. An important element for the division between general and vocational education is the selectivity of the lower secondary education. The achievement of young people in there is the key for later choices. Their main characteristics are the strong division between general and vocational education, on one hand, and a strong gender division within vocational education, on the other hand. However, the boundaries seem slightly be

challenged by recent trends, like the move towards office and health care professions, the "maturité professionnelle" and the increased possibility of access to higher education through the apprenticeship system.

The results based on a pathway-approach nevertheless do not give more than certain hints for education policy. It seems to be one of the most important tasks for each country to find its own balance between vocational and general education. Vocational education is not independent of the development of general education. Until now both areas have been different realms with hardly any links. This will and has to change.

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Appendix

Table 1: New entrants to upper secondary vocational education by field of study and gender, 1992/93.

	Absolute			Percent		
	Total	**Women**	**Men**	**Total**	**Women**	**Men**
Total	60 906	27 506	33 400	100,0%	100,0%	100,0%
Office	17 091	10 857	6 234	28,1%	39,5%	18,7%
Metal-working machines	11 703	156	11 547	19,2%	0,6%	34,6%
Health-care	6 186	5 613	573	10,2%	20,4%	1,7%
Sales	5 332	3 867	1 465	8,8%	14,1%	4,4%
Draughtsmen, technical occupations	4 039	945	3 094	6,6%	3,4%	9,3%
Wood, cork	2 145	82	2 063	3,5%	0,3%	6,2%
Hotel and restaurant trade, domestic science	1 813	873	940	3,0%	3,2%	2,8%
Cosmetics, hairdressing, beauty care	1 642	1 557	85	2,7%	5,7%	0,3%
Food, beverages	1 256	408	848	2,1%	1,5%	2,5%
Horticulture	1 254	775	479	2,1%	2,8%	1,4%
Construction, building trades	1 249	9	1 240	2,1%	0,0%	3,7%
Painting	971	201	770	1,6%	0,7%	2,3%
Agriculture	914	26	888	1,5%	0,1%	2,7%
Graphic industry	886	378	508	1,5%	1,4%	1,5%
Transport	713	278	435	1,2%	1,0%	1,3%
Other fields	3 712	1 481	2 231	6,1%	5,4%	6,7%

Table 2: Upper secondary vocational education: length of programme by gender, 1992/93

	Absolute			Percent		
	Total	**Women**	**Men**	**Total**	**Women**	**Men**
1 year	8 700	5 432	3 268	4,4%	6,7%	2,8%
2 years	20 314	14 988	5 326	10,3%	18,4%	4,6%
3 years	92 225	49 884	42 341	46,7%	61,2%	36,5%
4 years	73 730	9 765	63 965	37,3%	12,0%	55,1%
undefined	2 603	1 444	1 159	1,3%	1,8%	1,0%
Total	197 572	81 513	116 059	100,0%	100,0%	100,0%

Table 3: Participants in Upper secondary education by Gender and Language Region, 1980/81 and 1993/94

	1980/81	1993/94
All	90%	92%
Men	96%	94%
Women	84%	91%
Men in German speaking cantons:	96%	94%
Men in French and Italian speaking cantons:	94%	96%
Women in German speaking cantons:	83%	90%
Women in French and Italian speaking cantons:	90%	97%

Table 4: Vocational education: New entrants by occupational group and gender, 1978, 1980, 1985 and 1992, in percent

	-78/79	-80/81	-85/86	-92/93
Total	100.0%	100.0%	100.0%	100.0%
Office	23.9%	23.6%	25.2%	28.1%
Metal-working / machines	20.1%	20.3%	18.0%	19.2%
Health-care	8.1%	8.1%	7.9%	10.2%
Sales	11.4%	10.6%	11.3%	8.8%
Draughtsmen, technical occupations	5.4%	6.1%	5.6%	6.6%
Wood, cork	3.9%	4.0%	4.0%	3.5%
Hotel and restaurant trade, domestic science	3.9%	3.5%	4.8%	3.0%
Cosmetics, hairdressing, beauty care	3.1%	3.0%	3.0%	2.7%
Food, beverages	3.4%	3.0%	3.1%	2.1%
Horticulture	1.9%	1.9%	2.1%	2.1%
Construction, building trades	2.1%	2.5%	3.3%	2.1%
Painting	1.9%	2.0%	2.1%	1.6%
Agriculture	3.4%	3.2%	2.6%	1.5%
Graphic industry	1.1%	1.2%	1.2%	1.5%
Transport	1.5%	2.0%	1.1%	1.2%
Other fields	5.0%	4.6%	4.9%	6.1%
Men	100.0%	100.0%	100.0%	100.0%
Metal-working / machines	34.6%	35.1%	32.5%	34.6%
Office	14.5%	13.7%	15.5%	18.7%
Draughtsmen, technical occupations	7.5%	8.2%	7.7%	9.3%
Wood, cork	6.7%	6.8%	7.0%	6.2%
Sales	3.9%	3.7%	4.0%	4.4%
Construction, building trades	3.7%	4.3%	5.9%	3.7%
Hotel and restaurant trade, domestic science	4.2%	3.7%	4.1%	2.8%
Agriculture	5.7%	5.5%	4.5%	2.7%

Food, beverages	5.1%	4.3%	4.2%	2.5%
Painting	3.1%	3.2%	3.2%	2.3%
Health-care	1.1%	1.0%	1.3%	1.7%
Graphic industry	1.3%	1.5%	1.3%	1.5%
Horticulture	1.5%	1.5%	1.6%	1.4%
Transport	2.3%	3.1%	1.7%	1.3%
Cosmetics, hairdressing, beauty care	0.3%	0.3%	0.4%	0.3%
Other fields	4.3%	4.0%	5.0%	6.7%
Women	100.0%	100.0%	100.0%	100.0%
Office	36.7%	37.2%	37.1%	39.5%
Health-care	17.7%	17.8%	16.0%	20.4%
Sales	21.7%	20.0%	20.2%	14.1%
Cosmetics, hairdressing, beauty care	7.0%	6.8%	6.1%	5.7%
Draughtsmen, technical occupations	2.5%	3.3%	3.0%	3.4%
Hotel and restaurant trade, domestic science	3.4%	3.3%	5.8%	3.2%
Horticulture	2.3%	2.4%	2.6%	2.8%
Food, beverages	1.0%	1.3%	1.7%	1.5%
Graphic industry	0.8%	1.0%	1.2%	1.4%
Transport	0.3%	0.5%	0.3%	1.0%
Painting	0.2%	0.3%	0.6%	0.7%
Metal-working / machines	0.1%	0.2%	0.2%	0.6%
Wood, cork	0.1%	0.2%	0.2%	0.3%
Agriculture	0.1%	0.1%	0.1%	0.1%
Construction, building trades	0.0%	0.0%	0.0%	0.0%
Other fields	5.9%	5.6%	4.8%	5.4%

Chapter 7

"BUT WHAT I WANT MOST IS A JOB:" FROM SCHOOL TO UNEMPLOYMENT AND BACK AGAIN

Tove Lien

"Only the most stupid calf chooses,
of its own free will,
who it will be slaughtered by."

Bertold Brecht

Introduction

The education system of Norway has expanded enormously in the last thirty years, both in the academic and vocational fields. Thirty years ago education beyond the seven-year primary school was limited to the elite. In 1956, only 16% of the fourteen year-old cohort received more than nine years of schooling. Half of these went to vocational schools and apprenticeships, while the other half attended the gymnasia (lycées). Today, higher education is, in principle, open to all, and 95% of the cohort begin upper secondary schooling after the compulsory nine-year basic schooling.[1]

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[1]Mjelde (1996:366).

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Adult educational development has been a part of the government's educational policy aiming to give compensatory instruction for the large group of school leavers who work in the manual labour market. Norway passed a specific adult education law in 1976. Among other things, this law's preamble states "...the law shall contribute to offering adults equality of opportunity to acquire knowledge, insight and skills...." This law encompasses study programmes in organisations and institutions, and the completion of primary and secondary schooling for those over the age of nineteen. As part of its policy on the labour market, the law also stipulates that vocational training be offered to adults interested in upgrading their skills. The target groups for vocational training are the unemployed, and those in temporary or insecure work situations. The relationship between education and jobs is illustrated by the fact that in 1993, 36% of the unemployed had completed only basic primary schooling. Among long-term unemployed (those out of work for more than twenty-six weeks) this figure rose to 49%. By comparison, only 17% of those with jobs had completed only basic primary education.[2]

This article focuses on the situation of unemployed school dropouts caught up in present-day unemployment. One aspect of contemporary reality is the development of qualifications and competencies in the manual labour market. A second feature is the question of how those seeking work have experienced their unemployment situation, and what they need in order to obtain work. What happens to a person when the work situation, as well as learning through the discipline of the work

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[2]Raum and Torp 1992:2.

place, has fallen away? Can adult education offer real tools for getting and keeping jobs?

This article arises from an evaluation of labour market training in Vestfold County, Norway, undertaken between June, 1993, and June, 1995. This evaluative study was requested by the Vestfold County Labour Office. The data are based on interviews with 82 job-seekers who took part in a labour market course and were initially interviewed the week before the course started. They answered a course evaluation questionnaire during the final week of the course, and were subsequently interviewed again, by telephone, in the following three months. The aim of this evaluation was primarily to improve understanding of the effects of courses, in relation both to work and learning. An additional goal was to define criteria for improving the quality of the courses. Such criteria should be tools to strengthen participants' learning, and adjust the courses to participants' expectations and learning needs.

The whole sample represented the following labour market experiences:
1) those with little or no labour experience, particularly those under the age of twenty-five
2) women with work experience spread over a long period but with insecure and part-time work relations (cleaning, clerical and retail jobs) where wage work was combined with housework and child-care
3) men with long work experience in the construction trades and industry.

Of the 82 job-seekers in the sample, 26 were born during or before 1957 (11 men and 15 women). Among men, three had crafts certificates, two had technical degrees, and six had either the seven-year primary school or an additional year of secondary schooling. They had worked until the end of the 1980s, when crises in the building trades (reductions and layoffs) led to long periods of unemployment for men. Most have worked in scaffolding construction and other building trades. They entered the labour market course to get a certificate in scaffold construction work or other construction specialisation. On average, men had longer job experience than the women: all but one had worked for between twenty and thirty-five years.

Women had experience in cleaning, clerical and handicraft sectors. Two of them had been to technical school, one had taken some subjects at the college level, and twelve had either just seven-year primary schooling, or an additional year of secondary school. The work experience varied, but most have had between fifteen and twenty-five years of job experience. The women have alternated between housework, child-care and wage labour. They have found that in the 1990s they cannot find office-work despite their long work experience. The introduction of data technology in the clerical sector is one of the reasons. The women attended data courses in the labour market system.[3]

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[3]Lien 1995.

Labour and Economic Restructuring

The character of the labour market changed in the 1980s. In parts of the market, and in particular branches of the economy, new technology leads to new work organization and, as a consequence, more demanding labour. The need for old skills comes to an end. Among the questions that arise are which groups of skills have the greatest importance today under the new labour conditions?[4] One consequence in relation to selection in the labour market is so-called structural unemployment: for part of the labour force there is a disparity between qualifications offered and qualifications in demand. Long comprehensive work experience is no longer sufficient basic knowledge.

It is well-known that vocational training, whether undertaken at school or based on the apprenticeship system, is inextricably entwined with developments in the manual labour market. Up until the beginning of 1990s only 11% of the students in the first-year basic course (vocational section) of secondary school had the possibility of continuing for a further year, and only 3% were able to continue for the third and final year of vocational training. The competition in the apprenticeship system was even more intense.[5] As well as being so competitive, vocational education is still strongly divided by gender. Most girls seek instruction in office-work, the needle trades, hairdressing, home economics, etc.[6]

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[4]Lassen 1990.

[5]Mjelde 1996A:379.

[6]Mjelde 1996B.

Unemployment has both increased dramatically and, to a certain extent, changed its character during the 1980s. The well-known relationship between educational background and job security becomes highly visible in periods of peak unemployment. One aspect of this development is that the demand for further education increases both among those out of work and those with jobs. Gradually, as unemployment increases, so also does the tendency for skilled workers to seek unskilled jobs. Job-seekers without formal skills-training or academic education who left school early lose in the struggle for jobs. This struggle for jobs has been described as a queue where qualified candidates and those with work-related experience stand at the front, with an increasing number standing motionless at the back, unable to advance.[7] At the same time, the unemployed today are a more complex group than earlier. In addition to the groups with little education and work experience, there are also groups with higher education, with secondary school completion and long work experience among the unemployed. However, the lack of education and work experience continues to be the hallmark of vulnerability of those wearing the shoes of unemployment.

The consequences of increasing unemployment, both for society and the individuals affected, are socially and economically dramatic. At the same time, research on vocational education shows that, by far, more people with skills or general competence take part in educational opportunities than adults without such basic training and experience. This applies both to general adult education and special training for job-seekers.

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[7]McGivney 1992.

According to European investigations, this is so widespread that it would be inadequate to put this down to a lack of individual motivation.[8]

All job-seekers depend upon energy and contacts to orient themselves in relation to the labour market. Many of the unemployed lack not only competence in upgrading skills but also broad-based information on labour market demands. European investigations reveal a tendency among the long-term unemployed not to participate in retraining opportunities, or, if they participate, they tend to drop out or have a high rate of absenteeism during the course.

Labour and Social Recognition

For many people the experience of unemployment has incalculable consequences not only because one's occupational activity is an important and constant means to achieve social standing and recognition, but also because, to a certain degree, this is the most important way to find one's bearings in society in general. As well, work and work-mates are an important means of ørienting oneself to the educational possibilities in one's field. Oscar Negt (1985) says that the work which is an important means to social standing and social recognition does not take any specific form, nor does it rule out that which is pleasant and satisfying. The morale-building quality of work is:

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[8]Olesen 1985, Lien 1984.

> always so important that people who, without their consent, are withdrawn from this objective means of feeling useful, suffer severely, and as a result, can go directly to pieces. In the neighbourhood where one lives, and in one's circle of acquaintances one who loses his job is regarded with deep shame whether or not he is guilty. Through unemployment one loses one's social standing and recognition, and along with that, the ability to maintain a moderately stable sense of self-worth. How work is reduced to occupation and how, as such, this has taken on cultural meaning that reaches much further than the question of securing material existence, means that unemployment raises unavoidably destructive feelings in certain individuals.[9]

This is not made any easier by the ideological line that maintains if one really wants to work one can find a job. This little "truth," with its tattered objectivity, constantly draws nourishment from one's subjective feelings of guilt.

Oscar Negt maintains that the experience of this breakdown permeates the consciousness of the unemployed. Without the social and cultural sense of community that comes from work, the unemployed feel themselves literally floating in empty space. This will happen because the experience is an active, collaborative, critical and productive process, and it is collective. Formed socially, the sense of belonging to humanity cannot be experienced by the lone, isolated individual. Experience is consequently a process and is always historically determined. There will

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[9]Negt 1985:43.

always be different experiences because each occurs in its unique position in society and at its particular point in history. Experience is a productive, adaptive process where one works at one's own reality in order to make something of it. This is neither fantasy nor a mere surface depiction, nor is it merely something one has. It is something one does.[10]

A woman of 40 who took part in a computer course described her long-term unemployment in the following words:

> "I had a little substitute work, a little cleaning and I have been to this course before. But life without work is passivity. I feel myself side-tracked from society. I feel that I got something from the course but when it leads nowhere I am filled with emptiness. You can see yourself growing older but there is no way of using your experience. You lose heart and became negative about yourself. You get a very low self-esteem."

Among those selected for study there were eleven men over the age of 35. Some of them gave the following impressions of their unemployment:

A man (58) with two years of technical secondary schooling:

> "The time goes by. I am not very excited by occupational discussion. Experience is useless when you are fifty-eight. I have a lot but it's

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[10]Negt 1985:64.

useless to me for anything. It's not very pleasant to look into the future."

A man (49) with two years of technical secondary schooling:

"I have hobbies and do a lot around the house. I have lots to do but socially one is a pariah. I've always been used to working. That gives you a higher social status. You feel that you are a burden to society. It's the worst for the young. Me, at least I've worked for many years. I got my reputation from that."

A man (43) with his craft certificate:

"I creep around at home in the house. It's really grim. I have nothing to do and nothing to go out to. I miss the social company of my work-mates."

A man (53) with primary schooling:

"It's a blind alley. The economy is the worst. You have to use up the cash you have in the bank just to keep your head above water. The dole has fallen off, and it's degrading. That's the worst thing about unemployment. You get the desire to give up once in a while."

Job loss entails suffering both social degradation and isolation. In addition, this situation involves dequalification over time when the possibility of on-the-job learning disappears. This is truly dramatic for the short-term trainee who, through the work place, has managed to find

projects and interests which were ignored or suppressed in the course of his/her basic academic schooling.[11]

Unemployment, Another Reality

Oskar Negt calls the socialization which occurs during unemployment "a concealed reality" or "another reality." This implies that people who fall out of the system of social recognition through working life (if the situation persists over time), will undergo a completely unique set of experiences and engage in special practices. Among other things, being marginalized in relation to wage labour leads one to experience the meaning of time differently. Time is normally something one is free to control; yet people out of work suffer from the fact that time management serves no serious purpose. Planning one's time becomes an empty activity; moving from place to place becomes an empty exercise.

Two realities confront one another, each with its own outlook. This implies completely different ways of thinking about time. Negt maintains that in this situation, language falls apart. He says it is not a clear-cut case of linguistic comprehension which separates the two realities, but rather it includes both the consciousness and behaviour of the individual. Our understanding of the culture concept is inadequate to explain this division because culture only describes symptoms and surfaces; it does not go more deeply in the causes.[12]

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[11]Lien 1984

[12]Negt 1984:64.

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The 40-year-old woman who participated in the computer course has a two-year basic course at a commercial-clerical secondary school and fifteen years experience in office work. She has had a considerable amount of part-time work and explains that she has been unemployed at least twice before. When she talks about her unemployed periods, she says:

> "I have used my time job-hunting, and I read and knit a lot. But that famous word 'initiative' means less and less when you are jobless. Everything can be put off until tomorrow because you have so much time. I've lost a lot of self-confidence but I manage to get myself together again. When it comes to the jobs, I feel that I fall between stools - too much temporary work and not enough permanent jobs. It feels like a defeat, always, when the temporary job ends for me, somebody else continues on. Experience just isn't enough. Even when the labour office has an opening for me, I still feel like a parasite. I've begun to look over my shoulder before I go through their door."

Her expectations for the labour market course were to learn some theory and apply herself to hands-on learning in the classroom. She didn't need practice in business and felt in general that the course was too short.

After the course had ended she said that it had not lived up to her expectations. The main reason was the unplanned, ad hoc way the new skills actually related to job opportunities, and her inability to apply what she had learned to real job situations. She did not have any job opportunities after the course and wanted to enrol in a new upgrading

course. Three months later she was continuing in another course which gave her credits toward secondary school graduation.

Labour and Learning

Work experience has a resemblance to education in relation to learning conditions and training needs. To many adults, their work experience has been the most significant learning situation in life. Work functions as a filter for evaluating knowledge. In the course of carrying out his/her job activities, the employee shows employers and work-mates what his/her knowledge and experience are good for, and through this process, what they are worth. Young job-seekers with little job experience often lack the security which comes from stable working relations. In addition, work functions as a selection instrument for determining whether or not the employee is worth further educational investment. Employees who carry out "simple" tasks are usually disregarded when it comes to on-going or further training.

Many in my sample had not experienced secure working conditions to some degree. They had gone from one temporary or seasonal job to another. Often their work experience was spread over a whole spectrum of jobs, though within one main branch or the other.

In addition to the important arena of work, one learns and develops one's qualifications wherever society and the individual meet. If one is to grasp the dynamic of this relationship it is necessary to analyse both its individual and social dimensions. Thus it is that people who are

unemployed for long periods lose an important dimension of their lifetime learning: the on-going skills adjustment and improvement of knowledge that comes from workplace activity. Furthermore, they fall outside that aspect of qualification development which working life gives pertaining to the knowledge that is linked to the organization of work, co-operation, a sense of belonging and other duties and sanctions associated with the workplace.

From the individual perspective, the job-seekers' qualification requirements are complex and multifaceted. A lot say that these requirements must be related to their earlier work experience if this experience is to be deepened and developed further. One man of 42 who took part in a building restoration course had this to say about qualification needs:

> "I need to learn how old houses are built and how you should restore them. I need to go over the old job know-how I had from before in order to build up the new knowledge I need."

Young job-seekers with little or no work experience express their qualification needs both in terms of skills content and social competence. Such social competence includes the self-confidence necessary to mastering the job-hunting situation, the motivation to keep on going and not give up, together with increased independence.[13] The young job-seekers are concerned with the overall demands for labour power, and the ability to see the greater picture comes from one's practice in

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[13]Lien 1995:42.

working life. In this sample it was especially the young with little workplace practice who maintained that one required both professional and social qualifications in order to find work. The older ones with long years of work experience expressed no need for such social qualifications.

Recent qualifications research points out the trend, which is lesser than anticipated, to rely on specialised training. The speed of change in both technology and the organization of work mean that the most fundamental skills required for a job are: (a) the ability to have an overall view of the labour process; (b) the possession of general skills which can be applied to new work processes; (c) readiness for change; and (d) a theoretical understanding of the "whats and the whys." This includes both the non-specific job competence, general knowledge and basic cultural techniques as basic both for learning job-related skills and for functioning in everyday society. As well, this involves the whole basic socialization of the wage labour process, the ability to co-operate, adjust, be on time, act with responsibility, etc.[14]

The lack of craft training, long-term unemployment and the general lack of work experience are disqualifying factors in relation to the labour market. The natural order of learning and developing qualifications while working, has disappeared. In other words, there is not only a need for skills upgrading, but also to cover all aspects of qualifications regarding work relations.

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[14]Olesen 1985:143.

The group of workers born during or before 1957 had work experience in a labour market which required very little additional or on-going training in relation to the job. Resistance to, and insecurity about learning theory-based subjects is great. The majority in this category maintained that it was most important for them to learn through practice. A man of 48 who enrolled in a scaffold-building course said:

> "It has to be light on theory so you don't have to sit there and plug away. I haven't been to school or courses for many years. I'm really afraid of mathematics. I'd rather and sit and listen in class and then read a lot at home."

Labour Market Training and Work

Only a small proportion of the long-term unemployed enroll in the upgrading courses, and those that do often drop out. But what happens to those who do participate? Do they manage to find jobs?

Following the big increase in unemployment in Norway between 1987 and 1989 state initiatives in relation to the labour market increased enormously. The predominant measures taken were the so-called active initiatives like employment and qualifications upgrading courses. The passive initiatives were unemployment insurance payments, early pensions, and so on.

Table 1. Increase in labour market training:

year	participants/month
1988	2 942
1992	20 490

In relation both to length and the content of the skills components, the labour market courses differ greatly. The main courses vary in length from three to thirty-four weeks. The course content varies from competences at the level of craft certificates and work licenses, to the completion of the lower secondary school basic course of studies.

In 1992 women made up 38% of the unemployed according to national statistics. In spite of the lower number of women among the unemployed, they are over-represented among the Labour Market Training Programmes (AMO) on the national basis.[15] The traditional gender division is revealed in the gender distribution among the various courses. The men participated in courses to do with machinery, building and construction, while the women's participation was highest in the clerical, retail and service sectors. The report "Searchlight on the Labour Market" from 1993 shows that unemployed women seek out labour market retraining courses more often than do unemployed men. The amount of effort invested in job-seeking is related to education and job experience. Those who have been out of work for short periods more often seek training courses than those unemployed for long periods (more than twenty-six weeks). Job-seekers who have finished secondary schooling and those with long-term job experience are more likely to

[15]Raum & Torp 1993:119-126.

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avail themselves of course opportunities than those with little education and little work experience. Despite the intention to reduce long-term unemployment, the long-term unemployed have not been given priority in the taking of courses.[16]

Evaluative research also shows that a limited degree of education reaches out to people with poor education and long periods of unemployment. This group is under-represented today among those who take the courses. But, at the same time, because the courses are aimed at curtailing long-term unemployment, this is the group that ought to be given priority to secure places therein.

Long-term unemployment increases among people who lack professional training. Of the 82 job-seekers who were interviewed before the beginning of their courses, 70 had been unemployed for a period of time. The rest had either been fully employed, employed part time, or had been in other employment training. The range in the length of unemployment in the sample was 0 - 8 years, the average for the whole group was 14 months. Of the participants with crafts certificates, journeyman certificates or graduation in technical subjects, most were suffering long-term unemployment. To a considerable degree this was due to the massive downturn in the building and construction trades until 1993. We see the opposite relationship among the group with college-level education in this sample, where most of the unemployment lasted fewer than twenty-six weeks.

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[16]Raum & Torp 1993:119-126.

About half of the sample were unemployed for the first time. The number of women in this category outweighed the number of men, but, of those who had been jobless more than twice, the proportion of men to women was about the same. On the national basis as well, there are far more men than women undergoing long-term unemployment. Research undertaken by Landheim (1991), based on questionnaire data from 877 persons in employment retraining in Akershus, Hedmark and Hordaland during the autumn of 1989, indicates that about the same percentage distribution between first-time, second-time and repeated participation in these three counties. Landheim says that the participants were recruited relatively quickly after they had become jobless, and that this can be an explanation as to why the first-time jobless make up the majority in the employment training programmes.[17]

Variations in the employment situation after course participation took the form of combinations of work, new retraining programmes, subsequent education, re-employment or continuing unemployment. Those who were partially employed explained this as part-time work two days a week, several hours a week, some night-watchman work, etc. Many combine this part-time work with school, caregiving tasks, etc.

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[17]Landheim 1991.

Characteristics of the Categories with Full-time Jobs after the Course and the Completely Unemployed (Without Retraining or Any Other Programme)

In the following table, summary information of the number, sex, age, type of employment courses, previous qualifications and unemployment of people, who were either fully-employed or completely unemployed, is given.

Table 2. Characteristics of people with full-time job and unemployed after the labour market training

	total	m/f	age	courses taken	previous education	previous employment
full-time job	15	13/2	most 26-45	vocational or college level courses	fully qualified in trade or college training	unemployed aver. 9 months, most first time unemployed
completely unemployed	17	5/12	varied, most 19-25	computer or job-finding courses	1/3 no second. schooling, 1/3 second.sch. 1/3 craft quali-fication	unemployment aver.14 months, ½ long-term unemployed

Some further comments can be made. No one over the age of forty-five found full-time employment. Half of the fully employed stated that their jobs were in fields related to the courses they had taken. The majority were employed either in the building and construction trades, or worked in offices.

Summary

This article discusses the situation of the present-day unemployed job-seekers who enroll in short-term training courses in relation to the manual labour market, based on an evaluation of 82 job-seekers, who had signed for a labour market course. How does the job-seeker experience his/her unemployment, and what does s/he need in order to find work? What happens when the possibility for on-the-job learning, and the work situation itself, disappear? Are the available adult education courses useful tools for finding work?

The education system in Norway has experienced an enormous expansion during the past thirty years. This applies both to the academic and the vocational fields. Thirty years ago, education beyond basic seven-year primary schooling was available only for the elite.

Developing adult education has been part of educational policy, paying more attention to the large group requiring short-term training in relation to the manual labour market. Since the 1980s the labour market has changed character. In parts of the market, and in particular branches the adoption of new technology leads to new labour organization with growing demands on the content of labour whose consequences involve, among other things, a disparity between qualifications offered and qualifications sought after. Long, extensive work experience is no longer a sufficient qualification. One of the problems of training is that many more people with a high level of skills or with general education certificates avail themselves of these courses than do those without such qualifications. The consequences are dramatic because one's work-

related activities are looked upon as the most important means of achieving social recognition and status, and because this is, to a degree, the most important means of orienting oneself in society in general.

In addition, the workplace has been the most important learning situation in life for many adults. Many job-seekers in my sample have work experience in a labour market where there has been little upgrading or supplementary training on the job. There is great reluctance and insecurity linked to learning theory and academic subjects. The majority of these people say that what is most important for them is to learn through practice. Unemployment involves people losing an important dimension of their lifetime's opportunities for learning, for the on-going upgrading of their skills and qualifications in relation to work activities. On the other hand, they miss part of their potential qualifications in the work situation in relation to memberships, co-operation and organization of work and various forms of commitment associated with the work situation.

The long-term unemployed participate very little in educational opportunities, and if they do so, they tend to drop out of the courses. But what happens to those who do participate? Do they find work? The article shows the variation in the experiences of job-seekers in my sample in relation to the course and the labour market. This variation shows different combinations of work, new opportunities, secondary training, reemployment or continuing unemployment.

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Chapter 8

CORE SKILLS, GENERAL EDUCATION AND UNIFICATION IN POST-16 EDUCATION

Andy Green

The concept of 'core skills' (or 'key skills' as they are now officially termed: Dearing, 1996) has become central to all policy debates around post-16 education and training. Exactly how these should be defined has been the subject of prolonged and, as yet, unresolved controversy. Different bodies, from the CBI to the FEU, the NCVQ and NCC/SEAC, have produced different inventories of core skills and there is still no definitive version. However, there is general agreement that competence in core skill areas such as communication, numeracy, IT and problem solving are important for individuals both as learners in foundation education and training and as future employees in changing and flexible work roles. Beyond this there is a common notion that core skills can act as a kind of catalyst for necessary reforms in PCET.

Critics of overspecialized A levels (DES, 1988; FEU, 1990) have seen core skills as a way of introducing breadth and balance into the academic curriculum; advocates of competence-based vocational education have seen them as essential for promoting skills transfer and the portability of qualifications (Jessop, 1990); and supporters of the concept of a unified post-16 curriculum have seen them as a potential bridge between the academic and vocational tracks (Spours, 1995). Just about everyone rec-

ognises that they are necessary building blocks student progression to higher levels of education and training and for the achievement of the National Education and Training targets. Some, like Nicholas Tate, of SCAA, go even further and see them as a vehicle for re-inserting moral values into the curriculum.

However, despite the almost totemic status that core skills have gained in specialist discourses around PCET, there is little evidence, as this chapter will show, that core skills teaching is delivering the outcomes so frequently ascribed to it, or hoped for it . Standards of student attainment on vocational courses in mathematics and language are still widely held to be too low (Green, 1995; Green and Steedman, 1993; Steedman and Hawkins, 1994; Smithers, 1993; Wolf, 1992) - well below that achieved on comparable courses in countries like France, Germany and Sweden - and this is arguably one of the reasons for the low rates of completion and progression on many of these courses (Green and Ainley, 1995; FEFC, 1994). Core skills have still not been introduced into A level programmes and there is little evidence that their introduction into vocational courses has done much to bridge the divide between academic and vocational courses. Employers still frequently complain about the low standard of core skills amongst their young recruits (Brown and Scase, 1995) and there is as yet no evidence that the teaching of core skills has produced a generation of workers with more flexible skills. In fact, there is some evidence to the contrary that in certain areas of vocational training, such as NVQ Bricklaying, the introduction of competence-based approaches to core skills has actually reduced the generic competence of trainees, since they have only been taught to perform certain narrowly specified tasks without proper grounding in the core

knowledge and skills that underpin these (Steedman and Hawkins, 1994).

Current concerns such as these, highlighted some while ago by the Smithers Channel Four documentary, *All Our Futures*, have led the DFEE and NCVQ to review the whole process of core skills learning on vocational courses. However, the remit of these reviews has been to investigate and improve the details of implementation, rather than to question the fundamental assumptions of the core skills approach. The *Programme of Action* announced by the DFE in 1994 (OFSTED, 1994) for instance, called for actions to ensure greater quality and rigour through, *inter alia*: improvements in the external testing regime; more training of verifiers; clarification of knowledge required and grading criteria; clearer guidance for teachers; and tightening of accreditation criteria. NCVQ are currently revising the specifications to address these issues. However, what the review has not done is to question whether fundamentally the competence-based approach to the learning of core skills is adequate to the goals it has set itself, not least to the goal of creating a more unified post-16 curriculum and qualification system.

The argument of this chapter is that it is not and that no amount of modification will make it so. The fundamental problem, as argued here, is that core skills teaching is an inadequate surrogate for continuing general education, as, for instance, it is taught on vocational courses in many continental countries. Furthermore, it is only through a more concerted and rigorous approach to the latter that the worthy objectives associated with core skills teaching can be achieved. The peculiarly English emphasis on the concept of core skills is the product of a particular pedagogic

history and it is only by unravelling this that we can understand the policy trajectory and inherent limitations of the approach.

The History of Core Skills Concept in England and Wales

Core skills have emerged out of an historical absence in the UK. Alone amongst the major European nations in the nineteenth century, England developed a technical and vocational education that had no inherent connection with general education and schooling. Whilst on the Continent, and particularly in France and the German-speaking states, the typical form of vocational training was the state-sponsored trade school, which combined workshop training with systematic instruction in vocational theory and general education, in England, with its voluntarist traditions, there were few such schools and vocational education, as opposed to skills training, had to evolve in an *ad hoc* and relatively unsupported fashion (Day, 1987; Green, 1995; Scott Russell, 1869; Thompson, 1897). The normative model of skills training in nineteenth-century England was provided by the apprenticeship which was essentially practical, employment-based and marginalized from mainstream education (Green, 1990). It involved no general education and often little vocational theory (Thompson, 1897). Technical education grew up as an adjunct to this, first in the Mechanics Institutes and then in the Department of Art and Science evening classes; however, it was voluntary in attendance, poorly supported by employers and often desultory and unsystematic in character (Roderick and Stephens, 1978; Sadler, 1979). For many decades it remained unintegrated with apprentice training (until in fact the 1964 Industrial Training Act made day-release to colleges a

statutory part of most apprenticeships (Perry, 1976)). When City and Guilds of London Institute and the technical colleges were set up in the 1880s and 90s this tradition continued in modified form. Whilst technical courses included vocational theory they generally excluded general education and academic subjects.

What subsequently developed was a skills-based model of training quite distinct from the general and technical education model dominant on the Continent. This peculiarity, apart from being a major factor in reinforcing the low status of technical education - particularly in England and Wales - also left another important historical legacy. Where general culture should have been in vocational education there was a gap- to put it bluntly no-one knew what to teach apprentices and other vocational students by way of general education. The tradition of the 'practical man' did not suggest any obvious way of embedding general culture in vocational education. Since then we have been struggling to invent something.

Core skills have emerged as the favoured but unrealized surrogate for general education through a series of failed experiments. During the 1960s colleges started to include courses of Liberal Studies on City and Guilds apprentice programmes. Great ingenuity was extended by college lecturers in devising these strange new beasts - and many were the *impromptu* programmes on themes such as advertising; the media; nuclear power and such apparently relevant topics. Generally they did not go down very well with students who were unlikely to take a subject seriously which was non-examined and generally not esteemed within the ambience of the technical department and by the vocational lecturers

who were often openly dismissive. The outcome was a good deal of cultural dissonance and frustration on the part of students and lecturers alike. The experience has now left its own cultural icon in the form of Tom Sharpe's hapless college lecturer, Wilt, and his comic encounters with Meat 3.

Later, during the early 1970s, Liberal Studies was gradually replaced by a new mandatory and assessed component of City and Guilds courses: Communications Studies. This fared somewhat better than Liberal Studies, being demonstrably more practical and occupationally relevant. However, it was probably never fully naturalized by the typical vocational students.

The concept of core skills developed out of these failures in a series of initiatives from the late 1970s onwards. The area of core skills was first opened up and promoted not as a measure for apprentice students - since apprenticeships were now in decline anyway - but for the so-called pre-vocational students who represented what was defined as a new constituency of college students appearing as a result of the mass youth unemployment of the 1970s. These students were deemed not yet ready to chose a vocational specialism, and also to be often lacking in general social and life skills - to the extent, so it was believed, that it might make them unemployable (Holland, 1976). The Social and Life Skills course which had been developed for use on the Youth Opportunities Programme (YOP) and, in a more sophisticated version, in Unified Vocational Preparation programmes (UVP), was now recast into something much more ambitious in the way of a core programme of social knowledge and skills learning. The foundation for all this was, of course, the

FEUs: *A Basis for Choice* (1979). This seminal document, which not only developed the notion of a core skills curriculum for vocational students, but also early versions of individualized student work programmes, profiling and criterion-based assessment, became the basis for many of the major innovations in college teaching in the 1980s, including the Certificate of Vocational Preparation (CVP), the progenitor of the more recent Diploma in Vocation Education and, in some respects, GNVQ.

Since the FEU first developed these notions of a core skills curriculum, the agenda has been taken up and promoted in different ways by different bodies. In 1989 the CBI, in their key document *Towards a Skills Revolution,* advocated that 'all training and vocational education should include the following Common Learning Outcomes as core elements': Values and Integrity; Effective Communication; Application of Numeracy; Applications of Technology; Understanding of Work and the World; Personal and Interpersonal Skills; Problem Solving; and Positive Attitudes towards Change. In the same year the TUC published *Skills 2000 (1989)* with its own inventory of core skills and knowledge. Since then the CBI has continued to be a major force behind the promotion of core skills and with their encouragement core skills are now included within National Education and Training Targets, for which the CBI was itself initially responsible.

According to the latest version of these, by the year 2000, 75 per cent of young people aged 19 are to achieve Level 2 competence in communications, numeracy and IT and 35 percent of those aged 21 level 3 competence in the same areas (Oates, 1996).

The Government has also been increasingly active in this area. In 1989 John MacGregor, then Secretary of State for Education, invited SEAC, NCC, NCVQ and FEU to develop definitions of core skills in 6 areas: Communication, Problem-Solving, Personal Skills, Numeracy, IT, and Modern Foreign Language (Avis, 1992). The following year NCC published *Core Skills, 16-19* and the NCVQ director, Gilbert Jessop, *Common Learning Outcomes, Core Skills in A/AS Levels and NVQs* (Jessop, 1990). The proposals for core skills at A level were eventually rejected since the exam boards felt that they would rather use the limited amount of coursework assessment available for assessing subject knowledge rather than core skills and since the government feared the inclusion of core skills would in some way 'distort' A levels (Oates, 1996). They may also have involved unwanted additional costs, not least in the provision of large numbers of additional teachers for Communications, Numeracy and Modern Languages.

However, whilst the core skills train was decisively de-railed on the A level track it continued at full speed on the vocational tracks. Out of the NCVQ proposals came core skills units, at four different levels, in: Communications; Problem-Solving; Improving own Learning and Performance; Working with Others, Application of Number; and IT. These were subsequently introduced into the NVQ framework (although without separate mandatory assessment). Subsequently, with the inauguration of the broadly-based GNVQs in 1992, core skills came into their own. All GNVQs included as mandatory units :Communication; Application of Number and IT and as additional and desirable outcomes: Foreign Language; Problem Solving; and Personal Skills (working with others and improving learning performance). NCVQ policy, and that of the

awarding bodies, is that these core skills should be taught in an 'integrated fashion' through the vocational elements, although they are separately assessed. The policy is based on the notion of relevance and acceptability to students. As Tim Oates has written: 'For core skills to be accepted as legitimate by most learners in post-compulsory education they should be rooted in their vocational goals' (1991).

Core skills have thus become enshrined in most vocational courses for young people, but continue to be absent from academic courses. This outcome conforms to the historical logic of their development. They have been seen precisely as an alternative - for vocational students - to the general education whose historic pedagogic form has been exclusively associated with academic subjects, taken by a minority, and not with any form of general culture necessary for all. They are a product of the divided 'academic' and 'vocational' culture. The underlying assumptions behind and problems with this approach can be seen more clearly by contrasting it with the alternative model, which we will call the 'general and technical education paradigm', which is represented in current vocational courses in France, Germany, Japan and Sweden.

The Core Skills Paradigm and the General and Technical Education Paradigm

The general and technical education paradigm is based on the notion that vocational learning rests on a common foundation of general education or *culture générale,* as it is termed in France (Wolf, 1992). Three assumptions are associated with this. Firstly, there is the principle, deriving from the radicals of the French Revolution, that there is a minimum

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of general knowledge and culture that to which all young people are entitled and which all should attain as part of their initiation as citizens (Brubaker, 1992; Weber, 1976). Secondly, there is the belief that the learning of technology and technical mastery is an extension of applied science or *la science industrielle* and not just a matter technical skills. This was epitomized historically in the practices of the higher Engineering schools in France, like the Ecole Polytechnic and also, to a lesser extent, in the lesser Ecoles des Arts et Métiers - it also underlies the work of the modern lycée technique and lycée professionelle. (Day, 1987; Weiss, 1982). Thirdly, there is the assumption that the technical knowledge and theory which underpins vocational practice and skill is a knowledge which should be explicit and thus capable of being articulated in oral and written form. Being able to handle abstract knowledge and theory is seen as part of the analytical capacity that enables students to develop flexible and transferable skills and which will allow them to adapt to new situations and learn new skills as they develop at work. The grounding they receive in general education subjects is part of the process of developing these skills in analysis and clear expression.

The core skills paradigm rests on different assumptions. There has, historically, been no notion of a minimum cultural entitlement for all as a precondition of competent citizenship because there has been no strong concept of citizenship as a social contract. In the absence of any notion of a necessary and universal cultural minimum, the cultural criteria applied to the education of vocational students have been particularistic and selective, based on notions of 'relevance' and 'suitability.' Suitability has been defined in terms of pre-given assumptions about the limited 'cultural capital' of particular social groups and 'relevance' has meant pre-

dominantly relevance to future work roles - as defined by employers- rather than to future roles as citizens. In the English context technical knowledge and skill have also embodied different assumptions. In the apprentice tradition, craft learning meant socialization into a particular work culture and the acquisition, through guided practice, of certain manipulative skills underpinned by a minimum of 'useful knowledge' which was often no more than rules of thumb. With the decline of the time-served apprenticeship, and the advent of 'competence-based' learning, this already 'lean' notion of skill has become more minimalist, both culture- and theory-free. Competence-based learning, derived from behaviourist principles, defines skill as the ability to perform pre-given tasks with predictable accuracy (Ainley, 1994). Knowledge and theory are important only so far as they are necessary to competent performance, and may be 'tacit' or non-articulated. So long as the student can 'do' there is little need to know 'why', or to be able to articulate 'how'. General education is only necessary in as much as it 'underpins' competent performance in expected work tasks and can therefore be reduced to core skills. It is assumed that the logical, analytical and expressive abilities, often associated with the acquisition of a good general education, can be delivered through core skills learning, which is generally 'embedded' in vocational skills.

The differences between these two models, and the limitations of the core skills approach, can be further illustrated through a comparative assessment of the 'content' and 'process' typical of a number of vocational courses in the UK and comparable courses in countries like France, Germany, Japan and Sweden, which, broadly speaking adopt the general and technical education paradigm. Vocational courses in the

comparator counties vary considerably, of course, and there is no attempt here to explore the differences between them. However, what will be illustrated is that there are indeed common characteristics to these courses which are absent from those in the UK. Comparisons of 'content' will concentrate on the range of general education 'subjects' studied on vocational courses and the time devoted to them; and the standards and levels of achievement expected in core skill areas. Comparisons under 'process' will focus on: 1) modes of standard-setting and 'content' specification; 2) modes of delivery and learning; and 3) forms of assessment. Courses compared will be those equivalent to the vocational level 2 and 3 courses in the UK, including those which provide general vocational education and those providing occupationally specific training.

Content

The awarding bodies for the major vocational qualifications in England and Wales now subsumed under the GNVQ and NVQ frameworks (SNVQs and SVQs for Scotland), do not specify the 'content' of courses. According to NCVQ methodology qualifications are based on the achievement of certain outcomes, which are specified in terms of elements of 'competence', 'performance criteria', and 'range statements'. The 'content' of what is taught is not detailed in terms of traditional syllabuses but is rather inferred by the teachers and instructors from these criteria. There are also no specifications as to the length and modes of learning, although NCVQ do acknowledge a notional time norm for GNVQs taught in schools and colleges. This makes it somewhat difficulty to assess the precise range of what is actually covered by students

who submit for assessment. Nevertheless, from the assessment criteria, which are specified in various units of competence, it is possible to gain some idea of what students/trainees would normally be expected to have done.

Neither GNVQs nor NVQs have any compulsory general education in the sense of the traditional subjects which come under that rubric in schools. Students may opt to take certain additional units, such as in a modern foreign language, which would appear similar to traditional general education subjects, but these are not required. What is required is that they demonstrate competence in the core skill areas of Communications, Application of Number and IT. In the case of NVQs these skills are not separately assessed, but their attainment is inferred from demonstration of competence in vocational skills, which are deemed to require them. In the case of the GNVQs they are separately assessed, although not graded, but here also they may be acquired in the course of vocational learning without any separate teaching. It is impossible to say, therefore, how much time is spent on them, and this will vary from Centre to Centre. There has been concern, however, that what ever it is is not enough (FEFC, 1994). Given that they only represent three out of 12 compulsory units on the GNVQ Advanced, and given that the average amount of class contact for students on these courses is typically between 10-20 hours per week (FEFC, 1994; Smithers, 1993), it can be assumed that it is well below ten hours. According to the national survey of GNVQs in 1993-4, conducted by Alison Wolf and the FEU (1994), the modal number of classroom hours timetabled for GNVQs was 12. About 80 per cent of the respondents indicated that they allocated three or fewer lessons per week to core skills, and a third of subject team leaders

said that they did not allocate any separate lessons for core skills teaching (FEU, 1994, p.46)

By comparison, students on similar vocational courses in France, Germany and Japan, spend considerable time studying a wide range of general subjects. In France, students taking vocational baccalauréat programmes, which are broadly taken to be the French equivalent of the British level 3 vocational qualifications (Steedman and Green, 1993), have a very intensive and wide programme of general education. On the baccalauréat technologique (BTn) in Business Studies, for instance, which would normally take three years, they spend around 33-35 hours per week in class, and about 14 hours of this is spent in the study of general subjects such as French, History/Geography, Mathematics and Modern Foreign Language (Smithers, 1993). This baccalauréat is admittedly highly academic in nature, perhaps more comparable to a Business Studies A level than the Advanced GNVQ which might better be compared with the baccalauréat professionel. However, the latter also involves 13 hours plus a week in class taking general subjects. These include: Mathematics (2 hrs); Modern Foreign Language (3 hrs); Contemporary Studies (2 hrs) and Art (2 hrs) (Young, Hodgson and Leney, 1995). Even on the lower craft-level courses taken in the *lycée professionnelle* there is a substantial component of general education. The CAP (*certificate d'aptitude professionnelle*) course (comparable to an NVQ level 2) might include up to 14 hours per week of general education, including subjects as diverse as French; Mathematics; History/Geography; Applied Science and Law (Green and Steedman, 1993). The BEP (*brevet d'etudes professionnelle*), a qualification somewhere between our levels 2 and 3, includes a higher level of general education, occupying up to 18

hours per week.

In German vocational education there is the same concentration on general education. The Abitur in Business Studies, like the French BTn a three year academic/vocational course leading to vocational studies at university, involves 35-37 hours of class teaching per week including as general subjects: German, Mathematics, English, double Science, History, Geography and a second Foreign Language. Apprentice training courses in the Dual System, most of which reach standards judged equivalent to a level 3 NVQ (Steedman and Green, 1996), normally involves 2 days per week studying at the vocational college, the Berufsschule, where the time is divided between vocational theory and general education. The pattern is the same in the vocational high schools in Japan, whose graduates have been judged to attain standards similar to those on BTEC National Diplomas (Prais, 1987). Here students divide their three years of study almost equally between vocational studies, which are largely theoretical in nature, and general education subjects including Japanese, Mathematics, Social Science, and Natural Science.

We cannot make comparisons with the standards reached in most of these general education subjects by students in France, Germany and Japan, since vocational students in Britain do not take them. However, comparisons are often made between the attainment level in the core skills areas of Number/Mathematics and Communication/Native Language between British GNVQ and NVQ students and comparable students abroad. There is as yet little systematic evidence comparing across a range of countries for these areas. The International Evaluation of Achievement (IEA) studies have made comparisons across a wide range

of countries for attainment in mathematics but the ages of students in the samples are either lower than those considered here, or, where they are comparable, relate only to samples from schools and in any case predate the introduction of the NCVQ courses. So whilst we have some fairly consistent evidence from these studies that attainment in mathematics for British students at 13 years old lags well behind that of French, German and Japanese students (for a summary see: Reynolds and Farrell, 1996), we have no evidence for post-compulsory vocational students for a range of countries. However, what we do have is some evidence from inspections and other surveys which indicate that many students on vocational courses in England are experiencing difficulty in core skill areas such as Number and Communication. In addition to this we have the results of a number of bilateral comparative studies of vocational student attainment in mathematics, involving England, France and Germany.

Concern about the attainments of some college vocational students in numeracy and communications goes back some years. The OFSTED/Audit Commission report of 1993, *Unfinished Business,* found that up to a third of students on vocational courses failed to complete successfully and that one of the possible causes for this was the difficulty they experienced with the core skills demands of their courses. In the same year ALBSU conducted a survey of 12 Further Education colleges in England and Wales and found that 42 per cent of students needed help with communications to reach level 2 standards, whilst 60 per cent needed help in numeracy to reach the same standard (ALBSU, 1993).

Level 2 is the standard now required in core skills for students to be successful on the GNVQ Intermediate courses and level 3 for GNVQ Advanced. These levels may themselves not be thought to be very demanding - level 2 is conventionally equated with levels 5 and 6 in the National Curriculum, that is below higher grade (A-C) GCSE level, and level 3 with NC level 7, equivalent to a high grade GCSE (FEU, 1994). Nevertheless, few colleges, according to the Wolf/FEU survey, attempt to go beyond this (FEU, 1994) and many students would appear still to have trouble in reaching these levels. Probably no more than half of students on GNVQ Intermediate courses complete successfully and progress to level 3 courses and in first four years of GNVQ Advanced less than 50 per cent of students had completed successfully during the normal two year period. Surveys have suggested that one of the chief reasons for low rates of successful completion and progression on GNVQ courses is that students are not able to cope with the requirements in the core skill areas of Communications and, particularly, Numeracy (FEFC, 1994; Green and Ainley, 1995).

OFSTED, in its report on GNVQs in Schools (1994), found standards in Communications 'satisfactory' overall but noted that student writing often reflected the 'somewhat narrow range requirements of the units' and rarely required students to analyse texts critically (p.13). Others have put it more strongly. Alan Smithers cites the concerns of the Engineering Council and the Institute of Physics over the allegedly low standards of mathematics on GNVQ Advanced courses respectively in Engineering and Physics, and concludes that by comparison with similar continental courses, 'GNVQs appear lightweight, ideology-ridden and weak on general education' (1993, p. 39).

Criticism of standards of attainment in core skills have also be made in respect of NVQs. In these qualifications, as already noted, there is no requirement for the separate assessment of core skills. The latter may thus be safely ignored by instructors except where their absence would cause trainees to fail to perform adequately in the vocational competencies. According to Steedman and Hawkins (1994), this has caused a decline in standards of attainment in mathematics in certain craft qualifications. Their research compared the numeracy requirements in the CGLI syllabus 588 for Brickwork and Masonry with that for the Level 2 NVQ in Bricklaying which has largely now replaced it. They found that two thirds of the mathematics topics included in the original CGLI syllabus were not specified in the NVQ level 2 assessors handbook. The latter specifies topics such as ratio, addition, area, multiplication and division but leaves out more advanced topics which would be at National Curriculum level 5, 6 and 7 such as: converting one metric unit into another; fractions and percentages of quantities; and calculating volumes of solid shapes and simple applications of Pythagoras.

Steedman and Hawkins argue that requirements for mathematics in the NVQ have declined for three reasons. Firstly, mathematical skills are no longer assessed by written examinations, but can be demonstrated in written or oral forms, with students making as many attempts as necessary. Secondly, since NCVQ methodology requires that candidates pass on every element of competence it has been necessary to avoid setting a standard in mathematics that would act as a barrier to success for experienced skilled workers who have vocational competence but lower levels of formal education. Thirdly, it is argued that the funding mechanism, which ties funding in part to the attainment of outcomes, has en-

couraged assessors to pass candidates even where they may not have achieved the full range of competencies. Steedman and Hawkins conclude that: 'by omitting to build upon and extend trainees capacities in general educational subjects, - Maths and English - NVQs fail to provide a sound basis for progression in education and for further professional development.' (p.96)

Alison Wolf in an earlier report of a survey of construction lecturers in 17 colleges (1992) came to similar conclusions as Steedman and Hawkins about the declining mathematical competence of vocational students on these courses. She concludes: 'Studies of English vocational students' skills invariably show that, as a group, they have serious mathematics problems. The response of cutting down on the mathematics taught risks creating a self-perpetuating cycle of low expectations and low performance: and, more broadly, restricting the potential for progression of all students in a group.'

Many students on vocational courses in the UK would appear to experience difficulties with their core skills, but how do they compare with vocational students in the other countries cited here? From a comparison of the 'subjects' required in the different countries, and also from course specifications, it would seem that what is being demanded of the students in France, Germany and Japan in general education ranges much wider is than that for students in the UK learning core skills, but what of the actual performance of the students in practice in the core skill areas? The existing evidence for these comparisons suggests that at least in mathematics, the area most amenable to measurement, the standard normally achieved by students in France, Germany and Japan is often

higher than for students on equivalent courses in the UK.

Comparative studies conducted by the National Institute of Economic and Social Research in the 1980s on the attainments of craft students in France, Germany and England concluded that standards in mathematics in Germany and France were generally higher than in the UK. For example, in Steedman's study of mechanical and electrical craft students in France and the UK (Steedman, 1988) an international team of expert assessors judged that in a comparison of examination papers on the CGLI Light Vehicle Mechanics (381 pt.2) and the French CAP Mécanicien Réparateur Voitures Particulières 'the French standard in applied mathematics is very much above that expected here of our craftsmen, and closer to that expected of our technician grade.' (P. 55). In the research no-one in a class of 19 year-olds on the CGLI course on their final year was able to solve a problem which arose which required dividing 600 by 0.2. The same question was set to a group of 2nd year 15 and 16 year old CAP students in France and all completed the question correctly within a minute (p.63). Steedman also notes that students on the French BEP courses, which are more demanding than the CAP courses regarding general education, have already passed the lower secondary school matriculation exam - the brevet - whose required pass standard in mathematics was judged close to the level of a C grade in GSCE Mathematics. In the UK now the GCSE A-C level in core skills is equivalent to level 3 core skills for NVQ students. In the more recent (1996) study by Steedman and Green for the Government Skills Audit, teams of experts judged that whereas the requirements for mathematics on the French brevet were somewhat narrower than for the GCSE the standard in areas held in common for the French exam were similar to those at UK Na-

tional Curriculum level 8. It may be assumed that the BEP students who have attained this level on entry to their course reach a higher level by the time they complete.

In relation to Germany, Steedman (1992) and Steedman and Hawkins (1994) have compared the Mathematics syllabus and examinations prescribed for bricklayer apprentices in the German vocational schools with requirements foe Application of Number in the new NVQ qualification at level 2. It was found that the mathematics separately specified for the award of an NVQ 2 qualification was considerably less than that required for the German bricklayer apprentice. A further comparison also shows that the NVQ 3 Application of Number requirement for bricklayers does not differ significantly from that required for Level 2 and is still much less extensive than that for Mathematics for the German apprentices. (See Richter, Steedman and Weber, 1996, p.35).

Comparisons with level 3 courses in France and Japan suggest that student attainments in mathematics were as high if not higher on the French and Japanese courses as on their English equivalents. Prais, in his study on Japanese vocational high schools, found that the level of mathematics undertaken was at least equivalent to that on BTEC National Diploma courses in the UK (Prais, 1987). Regarding the French baccalauréat professionnel, Smithers has concluded that it 'is not only broader but more rigorous than the new GNVQs' (1993). HMI, in their report on *Aspects of Vocational Education in France (1993)*, concluded that: 'overall, the standards of work achieved by students studying for the bac pro are sound and compare favourably with those achieved by students taking similar programmes of study in England, such as the BTEC Na-

tional Diploma (p.7). The Skills Audit research (Steedman and Green, 1996) compared standards on the NVQ 3 in Bricklaying and the equivalent baccalauréat professionnel. Evaluations conducted by three English vocational experts and an FEFC Inspector, together with members of the French national and regional inspectorates responsible for vocational education, suggested that: 'the gap between the general education base developed by the vocational bac students and the NVQ 3 students is a substantial one. In Construction, the contrast between English Students at NVQ 3 level and Bac Pro students tackling the same mathematics questions and practical tasks requiring skills of measurement was judged to be painfully large.' (Steedman and Bertrand, 1996, p.24)

Process

The second area of differentiation between the core skills paradigm and the general and vocational education paradigm relates to theory and practice of the learning and, particularly to the processes of standard-setting, teaching and assessment. This is the area where, under the influence of the NCVQ, British vocational courses have been most innovative and where they have been most criticized (Steedman and Hawkins, 1994; Smithers, 1993; Wolf, 1992). It is also the area where they have most diverged from the more 'traditional' practices of courses operating under the general education paradigm in other countries. The differences are systematic and patterned and derive fundamentally from the different basic assumptions of the two paradigms, with the core skills paradigm starting from the position of 'competence' and the general education paradigm starting from the position of 'knowledge'. Quite dif-

ferent principles of specification, learning delivery and assessment follow from these different starting positions.

Under the core skills paradigm the overriding objective is that students or trainees should demonstrate competent performance of certain tasks. In the case of the NVQs these tasks are derived by the lead bodies from a consideration of what is typically required now in particular occupations. GNVQs are also vocationally related but in a more general sense and here the NCVQ determines the attainment criteria with reference also to the requirements of higher levels education and training courses. The purpose of standard-setting is to specify the criteria for competent performance, thus allowing it to be assessed and certificated. How the competencies are acquired is not thought to be the responsibility of the standard-setting bodies (ie the NCVQ and the AVBs): this is up to the individual learners and their instructors and teachers. In fact it is considered desirable that the process should remain as flexible as possible so that it can be adapted to the different needs of the learners and to their different circumstances. In the case of NVQs, these have been primarily designed for adult workers who often already have skills and for whom it would be undesirable to specify required forms of learning. NCVQ therefore adopt an approach which attempts to specify outcomes in some detail but which does not specify the process. No stipulations are made for either NVQs or GNVQs regarding the length or mode of learning (although assessment centres do, of course, have to be approved). Furthermore, since in NVQs it is the performance outcomes that matter and not the acquisition of knowledge *per se*, specification of knowledge requirements remains low, being limited to whatever underpinning knowledge is deemed to be necessary for competent perform-

ance, much of which has to be judged by the instructors and assessors themselves (Jessop, 1990).

The effect of this 'outcomes' approach is a form of standard-setting that is radically unfamiliar to most practitioners and learners. There are no syllabuses laying down the detailed content of topics to be covered; no directives as to the amount of learning time that should be spent on them; and few directives as to appropriate learning methods. In addition, at least initially, there were very few text books and very little exemplar material to guide teachers and learners. What there was instead was a profusion of material specifying outcomes in terms of 'elements of competence', 'performance criteria' and 'range statements'.

This new methodology has caused considerable consternation amongst teachers who claimed they did not understand the jargon of the elements and criteria and who simply did not know what to teach (Spours, 1995). It has also invoked considerable criticism from commentators such as Smithers who claim that the criteria lack clarity and rigour, as well as from the FEFC and OFSTED inspectors. Wolf has gone further in arguing that it is simply impossible to specify in words the precise standards of the performances to be demonstrated (Wolf, 1995). The NCVQ have not conceded that the principle of specifying performance outcomes rather than learning 'content' and processes to be wrong. However, after criticism by OFSTED (1994), the FEFC (1994) and the DFEE, they are now inserting into the range statements much more detail to indicate what should be taught. The fact that something like a 'syllabus' with guidance notes for teachers is now beginning to reappear, albeit furtively, does suggest that the original principle of trying to specifying

outcomes but not the process and 'content' was misguided. Indeed, Tim Oates, from the NCVQ, has recently acknowledged in relation to the objectives of promoting skills transfer that 'a pure outcomes approach is inadequate in maximizing learners' development of key skills, and some more control over the learning environment than is provided by the key skills units alone is required.' (Oates, 1996, p.36).

By contrast to all this, in countries adhering to the general education paradigm the standard-setting and specification process has remained far more traditional. Standards for vocational courses are generally set by the national education ministries (or the BIBB and Länder ministries in Germany) with input from employer and teacher bodies. These tend to be laid out in mandatory courses of study which include detailed syllabuses and copious guidance for teachers (sometimes mandatory) on learning methods and forms of assessment. They are invariably accompanied by a range of textbooks required or, at least, approved by the ministries, which include exercises and other work material for students. Syllabus specifications will normally include 'can do' statements about tasks that students should be able to perform but they will also contain detailed guidance on topics to be covered and knowledge to be acquired.

To take one example, the référentiel for French Language for vocational students studying for the bac pro in 'bureautique' in France specifies three broad objectives: the development of the pupils ability in communication and expression; the acquisition of techniques and methods; and the active and overt appropriation of culture. This is followed by very detailed specifications of what students should learn. Under the rubric 'Study of Language (c)' pupils are required to study through written ex-

ercises or reading of texts such things as: registers of language, norms, concepts of intelligibility, grammaticality and acceptability; the use of tenses in speaking and writing; pronouns and substitutes; direct and indirect speech; connotation; and logic and transition from one point to another. Under 'Study of Texts' students are required to study 'literary works and excerpts', non-literary texts, technical documentation and texts from other discourses (pictures, films etc). In addition to learning how to read appropriately, extract information, follow and criticize arguments and analyse, students are required to situate texts in a period or school of thought.[1]

The specifications for Communication Skills for the GNVQ Advanced contrast sharply with this. Firstly, they are very much less precise both in terms of activity and standard. Elements include: 'Take part in discussions with a range of people on a range of matters' and 'Prepare written material on a range of matters' with performance criteria such as: 'The contributions are expressed effectively for their purpose and are appropriate to the subject matter.' (Smithers, 1993). Whereas the teacher and student on the baccalauréat professionnel should have a good idea from the *référentiel* about what needs to learned and to what level, their counterparts on the GNVQ are likely to remain highly uncertain. Secondly, the requirements for the GNVQ Advanced are considerably narrower than those for the bac pro in that there is no reference anything comparable to the acquisition of 'culture' and apparently little requirement to exercise critical judgement and analytical skills. To give one example, under level 3 Element 1: 'Take part in discussions', students are required to make 'contributions which take forward the discussion and create opportunities for others to contribute.' However, they are not required to

be self-critical about their own contributions since it is only at level 4 that 'the student evaluates and develops the effectiveness of own contributions to discussions.' (Oates, 1996, p.25).

The second area of difference in the two paradigms relates to delivery or learning process itself. Again the differences follow on from the different conceptions of knowledge and 'competence' that are embodied in the two paradigms. Under the core skills paradigm it is the performance that counts; the knowledge acquired is only important in as much as it is essential for the performance. Given that traditional subjects are based on knowledge definitions and boundaries, it is clear that under this principle even core skills such as communication and numeracy cannot be taught as subjects, even if to the lay person they have more than a passing resemblance to the more traditional subjects of English and Mathematics. NCVQ and the AVBs thus recommend that the learning of the core skills of Communications, Number and IT are integrated with or 'embedded in' the process of learning vocational skills. Colleges in fact frequently offer extra support for those who need it through workshops. FEFC in the report on GNVQs in colleges have endorsed this practice arguing that '(in the best practice, core skills were developed and assessed through the vocational units. Workshops in communications, numeracy and information technology were available as were relevant materials to enable students to study by themselves.' (FEFC, 1994) It remains the case, however, that most of the core skills learning occurs within and as part of vocational learning. This is in sharp contrast to the practice in countries adopting the general education paradigm where native language and mathematics are invariably taught as separate subjects and by specialist teachers. In the best of this practice teaching is related to the

vocational specialism of the student but nevertheless remains separately taught and assessed (Wolf, 1992).

The advantage of the integrated method of core skills teaching is said to be that it affords greater motivation for students who are 'turned off' by traditional school- type lessons in English and Mathematics. This may well be the case, but the advantage may be gained at the expense of marginalizing the core skills to the point where the are not adequately learnt. Both FEFC (1994) and OFSTED (1994) have noted that there are often not enough specialist core skills teachers involved on teams delivering GNVQs and that the provision of support workshops is often poorly coordinated with the mainstream teaching for the units. FEFC in its report on GNVQs on colleges concluded that 'overall, the organization and support for core skills are lagging behind those given to mandatory and optional units and their development is proving difficult to cover fully within these units.' (1994, p.21).

The approach adopted to the teaching of mathematics and language in France and Germany are often thought to have a number of advantages. The use of specialist teachers and the identifiable curriculum location of the subjects tend to underline their important to both staff and students (Wolf, 1992). The maintenance of subject boundaries, traditionally derived from the defining methodologies, concepts and knowledge fields of respective disciplines, underlines the importance of coherent, sequential and accumulative approaches to learning. The frequent use of interactive whole-class teaching methods, as opposed to the individualized and resource-based learning often predominant on English courses, provides a structured approach to learning which reinforces norms regard-

ing standards to be achieved and the expected pace of learning (Reynolds and Farrell, 1996). Finally, and not least, the widespread use of textbooks and provided materials not only frees the teacher from the labour of producing individualized learning materials, but helps to ensure consistency of methods, coverage and standards across learning sites (Green and Steedman, 1993). Wolf, commenting on her observations of French vocational classrooms, notes with approval the 'formal structure and presentation common to all classrooms...visited' and attributes this to the 'value placed by French education on settings things out in an orderly, logical and consistent fashion.' Such comments replicate those of many observers of French and German classrooms, including HMI teams (as, for instance reported in their *Aspects of Education* Series).

There are, of course, problems associated with the more 'structured' subject approach to the teaching of core skills. It generally involves teaching to a class norm which can cause difficulties in classes with very mixed attainments, although this should not be an overriding problem on courses, such as GNVQ, with, at least ostensibly, selected intakes. Students can also find it boring unless a very high level of interaction is maintained in the classroom, which requires considerable teacher skill and good class order. There are also, inevitably, complaints from French and German vocational students that much of what they learn in general education is not strictly relevant to their vocational goals, although one wonders if they may not think differently about this in retrospect when promotion at work has imposed greater demands on their core skills. These are perennial problems and, of course, precisely the ones which advocates of integrated core skills teaching would advance as justifica-

tions for their approach. Clearly there are arguments on both sides. However, given such evidence as we have about the low standards of core skills amongst many of the vocational students in England, there must be a case for asking whether the gains of the integrated approach have not been bought at too high a price.

The third area of difference between the two paradigms relates to modes of assessment. Much has been written about the problems of assessment on NVQs and GNVQs in terms of the cost, bureaucratic demands and reliability and consistency of the procedures. There is no need to reiterate this here. However, it is worth pointing to the essential differences between assessment methods on these courses and those in some of the other countries considered here. NCVQ philosophy emphasises above all the importance of competent performance. Knowledge, as had been noted, is secondary. It follows from this that the major form of assessment is through the observation of performance whether this be manipulative tasks or human interaction. Written evidence is, of course, used as a supplement in assessment for NVQs , and extensively so on GNVQs, but it is always in a sense a secondary or proxy kind of evidence for competent performance. Under the general and technical education paradigm, on the other hand, there are two things to be assessed: performance and knowledge. Performance is assessed through observation, as in the British case, but knowledge is also separately assessed, usually through a combination of externally-set and marked written exams and internally-assessed course work assignments.

Neither system is at all perfect. Written exams are rightly said to have limited validity, even if they are relatively reliable. They mainly test

people's ability to pass exams. Internally-assessed coursework and performance observation can lack reliability and consistency although it is closer to assessing what actually matters. There are at least three major advantages, however, of the of the traditional French and German method of assessment. Firstly, it uses a mixture of assessment tools which acts as a check against the major weaknesses of each. For instance, if there is a problem about the authenticity of student coursework and the consistency of its internal marking, then the external written exams can in some degree compensate for this. Secondly, the combinations of methods used ensures that theoretical knowledge is assessed as well as skilled performance. This is important since assessment of performance by observation can never be so comprehensive as to cover all the situations in which competent performance is required. Assessment of theory ensures at least that students are assessed on their understanding of the principles underlying practice from which it can be inferred whether they can adapt their practice to different situations. Thirdly, the mixed assessment regime takes account of the reality that all assessment methods are imperfect and to some degree subjective. NCVQ methodology involves the dangerously naïve assumption that standards can be articulated with a scientific rigor and precision which allows assessment to occur with minimum recourse to the judgement of the assessor. Assessment in France and Germany, on the contrary, recognizes the inevitable centrality of judgement on the part of instructors and assessors. Standard-setting does not aspire pseudo-scientific precision and accuracy. It indicates the knowledge, topics and skills which should be assessed and leaves the question of standards in large part to the accumulated and, hopefully, largely consensual judgement of the teachers, instructors, juries and markers who are variously involved in the process.

Beyond this, and importantly, there is the strict regulation of the process, absent in NCVQ methodology, which acts, in substantial part, as a guarantor of the quality of the student outcomes. It should be noted that in German Dual System, widely regarded as the very hallmark of quality in training, the vast majority (over 90 per cent) of apprentices gain their certificates (Wolf, 1994). Assessment provides the final seal of approval: it does not act as the main definer of quality (Wolf, 1995). By contrast in the British system, assessment and 'outcomes' are not only a means of examination, they are also the primary instruments for course specification, quality control, teacher evaluation and, increasingly, funding. Too much has been laid at their door.

Conclusions and Policy Implications

The NCVQ are currently revising the specifications and assessment arrangements for key skills in GNVQs and NVQs. They have acknowledged that the current assessment procedures place too many demands on assessors and that they have been perceived as excessively bureaucratic and time-consuming. They have also recognized that there has been a 'lower than expected number of examples of good practice' in the delivery and assessment of core skills 'where teachers often leave key skills as an afterthought' (Oates, 12996, p.33). The likely result of their current review is that assessment of key skills will be simplified with the use of externally-set assignments for each key skill area which will be generically applicable to all vocational contexts, thus obviating the need for multiple assessments to demonstrate student competence in different contexts. There is also evidence that the NCVQ are softening their inter-

pretation of what it means to adopt an 'integrated' approach to key skills delivery. Whereas before the emphasis was on the learning of core skills being largely 'embedded' in the process of learning vocational skills - and thus taught simultaneously - now they appear to be saying that it is simply a case of 'contextualizing the key skills in ways that are meaningful to students' (Oates, 1996, p.31) with no specific preference as to whether they are taught separately or simultaneously. However, there is still no intention to broaden the scope of the key skills since this would mean including areas which are not amenable to the outcomes-based approach to specification and assessment (Oates, 1996). Thus, whatever adjustments are made to the assessment procedures, it would appear that the fundamentals of the core skills approach will not be changed.

The argument of this chapter has been that the core skills paradigm represents an impoverished form of general education which is neither adequately delivering the minimum basic skills normally associated with an effective general education, such as verbal articulacy, logical skills and mathematical literacy, nor even attempting to impart a foundation of scientific and humanistic culture adequate to the demands of active citizenship in modern societies. This in itself, if true, represents a major indictment of the enterprise. However, the critique must go wider than this since core skills fall short on another count central to the reform of post-16 education which is that they fail to provide the basis for a workable unified curriculum.

A unified curriculum, containing different pathways within it, must have some principle of unification - there must be something holding it together over and above the formal structure, otherwise it will not be

perceived as in any sense unitary even if notionally part of a single framework. There must be some unity at the level of the underlying aims and objectives. This can palpably not be provided by core skills for a number of reasons. Firstly, core skills were not originally designed with reference to the entire post-16 system of curricula and qualifications, but essentially only for vocational courses. It is no wonder that they have not been introduced into A levels since they rest on a notion of 'competence' that it fundamentally at odds with the knowledge-based rationale of academic courses. Secondly, given their very narrow and particular aims, core skills cannot serve as the basis of a common core for both academic and vocational courses. Arguably, no curriculum area derived from the world of work, with its minute division of labour and multiple social stratifications, can achieve the kind of universality which would allow it to serve as a common foundation for learning.

Only some notion of general culture, addressing the future needs of adults as both workers and citizens, can fulfil this function. Historically in France, it has been just this notion of *culture génerale*, as a minimum entitlement of all French citizens, which has provided the cement that has held the academic and general education at least within talking distance of each other if not exactly in unison. Without some mandatory core of general education, which is how this concept translates in educational practice, any plans for a unified curriculum will, in practice, turn out to be little more than technical fixes. They may allow 'mixing and matching' but they will provide no real commonality - and no notions of a shared culture or a common citizenship either. So how could we achieve this without unrealistically radical measures against the grain of the received culture?

The logic of the argument presented here is that there should be, for all post-16 courses, a mandatory minimum core curriculum of general education. This should include, at the least, English/communications; mathematics/numeracy; and some form of civic or citizen education which would have as its aim the cultivation of political literacy, environmental awareness, international understanding and social responsibility. Ideally it would also include science and a foreign language although, given the great difficulties many students have in these areas, would probably allow these as alternatives. In a modular system these areas would occupy a discrete space, with the clear intention that they would be taught as separate subjects with specialist teachers, albeit with teachers encouraged to make connections across the curriculum.

A modular system, containing these subjects as mandatory core units, would have a clear basis of commonality across the different pathways and this would help to encourage parity of status between the pathways as well as possibilities for student transfer and progression. Having said this, however, it would not be necessary for all students to study these areas in quite the same form. Maintaining some credibility of a minimum standard would be important for parity but there is no reason why the core areas should not be to some extent customized to the requirements of different pathways within the system. Students, for instance, studying on a pathway which had as its major component, engineering, might be expected to take relatively demanding mathematics and science units designed in relation to that major, and an English/communications unit that had a bias towards technical language. Students taking languages or business studies as their major might be required to take mathematics but this again could be customized to their particular

needs.

Such an arrangement, with assessment attached to each module, would maintain the flexibility and motivational advantages associated with the modular system, but begins to take on some of the characteristic of the linear curriculum models typical in countries like France and Sweden. In these the lines are defined by reference to the major subject with ancillary mandatory and optional subjects, customized to the requirements of the major subject, forming part of the cluster. The advantages of such linear arrangements are that they tend to maximize coherence across the whole programme of study and encourage accumulative learning.

There would no doubt be many objections raised to these arrangements. They would involve replacing the elective form of A level examination with a form of grouped assessment which might be unpopular with some students; they would create difficult and possibly unpopular additional requirements for some students who are not confident with mathematics and languages; and they would incur additional costs in specialist teachers. However, these arguments can be met. Elective examinations are not an immutable part of our education culture. Until replaced by the A levels in 1951 matriculation used to be via a grouped award called the Higher National Certificate and this was not excessively unpopular. The cost implications of the changes are real but they are not so great when set against the enormous wastage through drop-out on post-16 courses and the additional costs to employers of training those with poor basic skills. The question of difficulty is the most serious and here their can only be a radical answer.

Many students in post-16 education find completion of both level 2 and level 3 courses difficult. The extra general education requirements proposed here would make it all the more so. However, the answer is not to avoid the problem but to find ways of tackling it. One of these is to increase the length and intensity of study for the level 3 courses which it is hoped that the majority will now take and complete. Reaching world class standards in post-16 education means competing against countries like France, Germany, Japan and Sweden where the majority of those completing compulsory schooling spend an additional three years in full-time study involving upwards of 30 hours in the classroom and substantial amounts of homework. Students in England and Wales are typically expected to reach similar standards over two years with in most cases no more than 15 hours of tuition per week. It is no wonder that many have problems reaching the same standard. The answer is to increase the normal learning time on post-16 courses to a level comparable with these other countries, giving students a reasonable chance of reaching their levels. Now that staying-on has become the accepted cultural norm, this should no longer be a social problem. It would, of course, involve substantial costs. However, the social and economic costs of not doing this will ultimately be a great deal more.

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Chapter 2

HOW TO STUDY APPRENTICESHIP COMPARATIVELY?

Anja Heikkinen

1. Preliminary remarks on problems of comparative research

The topic of the conference in Malta was "Apprenticeship and vocational education - changing policy and practice in uniting Europe". The conference was not simply a platform for commenting separate papers, but also for discussing, how to proceed to a more thorough and focused way of analysing and interpreting European vocational education in an international research-setting. Thus, in discussing apprenticeship, we should also problematise our way of conceptualising the forms vocational education. Besides, we should ask ourselves, what are the objectives and political commitments of our research. In order to promote the questioning of these issues, some thoughts, which emerged during preparing the paper of apprenticeship in Finland, are described in this paper. After discussing some criticism on comparative educational research and some proposals for its development, one alternative for proceeding towards "dialogical and collaborative comparative research" on vocational education - whether its specific topic is "apprenticeship" or some other - is presented.[1] Shortly, it might consist at least following inter-linked di-

[1] The important question of the "entities" to be compared, belongs also here. Previously the network has used the category of "culture", but discussions on how to conceive or define it have been very preliminary - cf. some ideas in the introduction to

mensions. First, in characterising changes, continuity and epochs, all comparisons must have time as a general criteria. Secondly, internal comparisons should be made inside sources or the material to be compared between the (cultural) entities, in order to trace the genuine diversity of the phenomena. Thirdly, the phenomena of vocational education should be related to other forms of education both at the level of entities to be compared and at the "meta-level" - for example country or nation-state - of comparison. Fourthly, at the meta-level, comparisons should proceed from surveys of similarities and differences, through explorations on circulation and reciprocal influence of ideas and models, towards understanding underlying complex interdependencies.

2. Criticism on existing comparative research and cartographies on VET - including apprenticeship

The making of a European economic space is related to the value of vocational qualifications, which are being produced in various forms, according to various didactic principles and certifying systems. Are the existing typologies used in the EU surveys and analyses sufficient for describing and understanding the similarities and diversity and the educational, economic and political problems they bring with them? The OECD and EU-cartographies, which include some conceptual and theoretical reflections - e.g. the VOTEC report on apprenticeship - surely give valuable descriptions for raising further questions. As described in another article of this volume, the criteria used for comparisons have been

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Heikkinen, A. (ed) 1995. Vocational education and culture. Prospects from theory and practice.

"the role of actors": the apprentice, the employer, schools or training centres and the social partners and the "main elements of running the system": the contract, administration and financing, evaluation, certification and qualification, entry into the working life. Still, it should be obvious that "actors in apprenticeship" are also "actors" in the whole system of vocational education and education more broadly and in specific social and industrial relations. Thus, for example, the concept and idea of "social partners" may basically differ in different countries. Without understanding it, a straightforward comparison between countries does not much increase our understanding of "the apprenticeship".

Turning to academic research on vocational education, some examples from general criticism on comparisons in education - probably relevant for many of us, too - can be given. Comparisons often limit their focus on **description** of peculiarities of national systems either as institutions, regulations, educational policies, didactic or curricular arrangements, or as functions of economy and politics. (Deißinger 1995). Similar criticism has been raised on comparative research on higher education (cf. Kivinen & Rinne 1995, Mclean 1992), probably also worth studying for VET researchers. Comparisons are blamed because of narrow focus on indicators of organisations, like number of students and staff, amount of investments, or on policy documents, laws and governmental plans. The material available on these indicators is, however, mainly giving fragmentary, restricted and abstract information. Research is reduced to comparison of separate variables, without elaboration of theoretical contexts and deeper reflection on basic contextual factors. The critics doubt, whether such research gives possibility even for exhaustive description, not to speak of explanations or developing theoretically

grounded concepts or even plausible generalisations on education trans-nationally.

Most previous critics accuse the long domination of **functionalist** social theories (e.g. Durkheim, Parsons, Merton) for the current situation in comparative research. Functionalism is conceiving societies as "systemic systems", differentiated into pseudo-rational levels, subsystems and dimensions, which support and compensate each other. Actors and agents of education are reduced into strategic interest groups competing for their status. National peculiarities and divergence is forced into universal system models, where VET, for example, is one predefined functional subsystem in the totality of society. Also system-theoretical research (e.g. Archer 1979, 1992), which takes education to be a relatively autonomous system and opposes universal theories of modernisation, social integration and control, human capital theory or ideological diffusion, has been criticised: in the end it also leads to functionalist conception of the **educational system** and its components.

The actual tasks and principles of educational systems and their components may vary greatly among national states, for example. On the other hand, a recent analysis on European VET policies shows in an interesting way how the "**general educational strategies**" in the EU, however, are also expressions of a new kind of nationalism, which has been accompanied by comparative sociological (and historical) research on "successes and failures" of vocational education systems (Avis&al 1996). "Society", taken as a basic reference for comparative research seems in fact to be a totality of a nation state. However, this may be basically misleading. Society is internally diverse - e.g. in division and structures of power, indi-

cated in division of labour - and externally formed in relation to other societies - in international divisions between sources of power and fields structured by power. (cf. Mann 1986) Accordingly, educational system should not be taken as an apparatus, but as a field, which may only turn into apparatus, if the rulers can completely dictate over their subordinates.

In order to make the critical remarks more concrete, I take as an example of popular typologies of vocational education, W.-F. Greinert´s characterisation of three basic models of VET, and its criticism by T. Deißinger. Greinert claims his models to be based on comparisons of the "role of the state in VET" - primarily in terms of regulations and degree of standardisation. The types are "Market model" (Anglo-American), "School model" (French-Roman countries), "State-regulated market model" (German countries). According to Deissinger, the shortcomings in Greinert´s typology have led to substantial mistakes:

* For example in England, the state does contribute financially and through regulations, especially through employment training - the reluctance of enterprises to invest on training on the job should also be recognised.

* The role of state in Germany is not at all regulating - duality is more an issue of learning site than control. Germany represents rather a state supported market model; the state control deals only with the vocational school. The commitment of enterprises/work-life is decisive for the socialisation function (and occupational orientation) of VET.

According to Deißinger, however, more serious structural criticism should be raised concerning the typology. It reduces VET processes to supportive functions of political and social processes. The essential issues of occupational relevance or didactic-curricular principles are left out. Typology can also be blamed for inconsistency: although claiming to use only one criteria of "the role of state", it is in fact using different criteria for different models: 1) functioning mechanisms for one, 2) decision/regulating competence to another, 3) the site of learning for third.[2]

This kind of typologies of vocational education have several deficiencies, if one tries to use them e.g. to comparative understanding of "apprenticeship". Firstly: they are using single, separate criteria or characteristics, neglecting the complexity of VET. "We note a broad range of views which may explain certain phenomena... however, no single one seems to be appropriate to interpret convincingly the developments overall" (Teichler, in Kivinen&Rinne 1995, p. 235). Secondly: they are a-historical and restricted to current, actual problems in VET pedagogy, which don't provide criteria for exhaustive comparisons.[3] Thirdly: such classifications are in danger of producing deliberate abstractions from descriptive material and using diffuse categories and criteria, which overlap and are contradictory. As a consequence, such macro-structural models do not grasp the complexity of the world of VET, the action spaces and dimensions of vocational pedagogy and do not increase terminological comprehensiveness inside theory or practice of VET.

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[2] According to the function of state these would be liberalist and private economy, state regulated or state supported models, according to the learning site enterprise, schoolish or dual models.

[3] This is not to deny that Greinert, for example, is an expert in the history of German vocational education.

3. Prospects for developing "comparative VET research" including apprenticeship

"Comparative research on education" has primarily been sociological. Thus, even if we agreed that "comparative VET research" needs history, some remarks and warnings, made by Godthorpe on "grand sociology", which legitimises its way of using history as "furnishing materials" by the complexity of comparisons, may be worth replicating. "Sociology must, it is true, always be a historical discipline; sociologists can never "escape" from history... they should be historically aware... of the historical settings and limits that their analysis will necessarily possess... When sociologists are compelled into historical research by the very logic of their inquiries... they must be ready for a harder life... They must not only learn new techniques, but also to accept new frustrations; in particular those that come from realising that issues of crucial interest are, and will probably remain, beyond their cognitive reach." (Goldthorpe, in Blumer 1996, 118)

According to Goldthorpe, what distinguishes sociological approach from historical one is that the former is inclined and able to create its own material and the latter cannot. However, some complementary remarks may be needed in the educational research context. First, does the previous comment imply that history is inevitably a national(ist) discipline, that "comparative" and "multinational" research is impossible, because everybody involved could not base their work on all primary sources and relate it to all national research traditions? Do we anyhow need some transnational conceptual tools at appropriate abstract and general level, in order to discuss comparatively on historical developments? A second

remark concerns the problematic nature of education as a discipline and the role of history - or philosophy or sociology as well - as its "foundation discipline". The criticism towards interdisciplinarity or adisciplinarity seem to undermine the possibility of education as an eclectic and practical discipline. Could the thematisation of the research topic as "education" actually permit or even demand an eclectic way of combining disciplinary approaches? But what then should be the criteria for "doing it properly"?

Some critics of comparative social research, also in education, have recommended adoption of **ideal-type-approach** in Weberian style as an alternative to functionalist and ahistorical approaches (cf. Mann 1991, Ragin 1993, Deissinger 1995). What would the aim of ideal-typical concept formation, which is not "to find the law-likeness of cultural phenomena, but to make their individuality clearly conceivable", mean in comparative research on VET? Should we start with creating some ideal-typical constructions on educational characteristics of VET - or apprenticeship in this case -, extracted from some crucial historical cases, which would give ground for further comparisons and descriptions on historical moments of change?

How to define then the **criteria for contextualising** different forms of education to society? A popular candidate for many educational sociologists has been Michael Mann´s idea of sources of power. (Mann 1986) To put it simply, he structures power in any society or societal connections to ideology, economy, military and state. Ideology is symbolic power, control or ownership of "money" is economic power, military is organised physical power, state is the power of regulations and legitimated

violence. There are several difficulties in taking Mann as a starting point for "comparative research on VET". First it is difficult to interpret the sources of power in educational context.[4] Secondly Mann seems to neglect other social (and/or cultural) dimensions than power: sociability, morality, knowledge, and he doesn't give attention to technology and gender, which all are essential for understanding vocational education. Still, the idea of constructing a similar "universal frame" for comparisons, which would be abstract enough to allow highly complex interpretations and historically grounded to make it usable, may be worth of reflection.

In fact, the lacking recognition of relations between research and practice, may be one reason, why the historians of education have "failed" both in educational and political terms to have much influence. "(H)istorians must be alert to the policy implications of their research... policy makers should become more aware of the relevance of historical considerations for their own work...Historical awareness needs to be grounded in a careful study of changing contexts, needs and demands. It is tempting but perilous to seek "lessons" from the past without such study... history can be seen much more (than objective and impartial) as a contested property that can illuminate, condition and lend weight to different and even opposing arguments on the basis of conflicting interpretations of the evidence that is available" (McCulloch 1989, p. 26) Could the way ahead be, what Mc Culloch calls "policy-oriented qualitative research with historical dimension" or what Ragin calls

[4] Interpretations - an imaginary example: curriculum and behavioural patterns in vocational education as ideology, financial control as "money", patterns of aggressions or punishment as "military", rules and regulations as the "state" in vocational education - may be possible, but would hardly be manageable in comparative research.

"qualitative comparative analysis" (Ragin 1994). This might lead to a specific kind of case-approach with an aim to produce more general theoretical account. The totality of cases should be maintained and its parts - for example apprenticeship - would analysed in this context. Thus analyses of similarities and differences between some phenomena would simultaneously be analysis between the totalities. The way Ragin proceeds, seems more questionable to me, however. He advises researchers to concentrate on qualitative features of systems and search for causal interdependencies which relate qualitative changes to the complex combination of relevant contextual factors. For Ragin, recognition of the multiplicity of cases is necessary, because cases are intermediate products linking (general) ideas and evidence in different ways.

Else than Ragin, I would, however, understand a "case" rather as an effort to explicate dialectically the complex relations between the general, the specific and the individual. The **general** is the essential categories or factors in vocational education, which grasp something shared by all its objectifications, are related to educational anthropology, to technology, to global environment. The culture **specific** (national or other "totalities" constituting shared life-forms, mentalities, conceptions etc) factors demand historical understanding. Although the **individual**, unique factors may never allow complete theorisation, they are also necessary to take into account. The reason is that the "general" and the "specific" are never observable as such, but only as components of, embedded in the "individual". An individual case as something "specific" would thus not be just an example of the "more general" category or idea. Still, a "case" is always also a construction, a "quasi-individual", produced by the re-

searcher who is trying to convince his/her audience of having insight into something that in fact is not visible.

Although it may be characteristic for educational researchers to solve annoying theoretical and methodological problems of comparative research by applications from other disciplines, there are some serious attempts to reflect them also in vocational education research. Among such are T. Deißinger´s (1995) ideal-types on "qualification styles" (Qualifizierungsstile) in vocational education, which may be presented as an example and starting point for further discussions. According to Deissinger, the multidimensional concept of qualification style is constructed in order to promote categorisation of different "VET systems" according to their essential characteristics. These can be called the Input-factors of qualification process, which would extend comparisons restricted on "outputs" - like forms of examination and certification systems - to their role in the broader context of qualification traditions.

Table 1. Description/matrix on qualification style idealtypes (cf. "systems")

	Dimension A	Dimension B	Dimension C	(systems - Greinert)
Q1	Decisions from industry	function oriented	according to schoolish general education	("Market model")
Q2	Decisions from state	science oriented	accord. to schoolish, work-life oriented learning	("School model")
Q3	Competing decision competence of state and industry	occupation oriented	accord. to schoolish supported training in enterprise	("State-controlled market model")

Explanations on dimensions (structural characteristics and functioning mechanisms) of qualification styles:

A Political and organisational regulation frames for qualification[5] processes (ordnungspolitisch-organisatorische Rahmen des Qualifizierungsprozesses)

* who is co-ordinating, controlling and financing qualification activities

* is the responsibility shared, are the training duties, processes legally regulated

B Didactic-curricular orientation of qualification process (didaktisch-curriculare Ausrichtung des Qualifizierungsprozesses)

* what are the underlying didactic and methodological principles for training process

* what is the aim, the content, how is it taught

* what are the relations between qualification or competence profiles in training and in work-life

C The place of qualification process in the context of socialisation (Verortung des Qualifizierungsprozess im Sozialisationszusammenhang)

* the mode of transition from school to VET and from VET to work-life

* which weight (prestige) has VET as socialisation

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[5] Deißinger defines "qualification", following Beck, as knowledge, abilities and attitudes of a person in relation to demands of a (certain) work-place. It "describes how far the ability structure of an individual facilitates/enables him/her to meet or fulfil the necessary functions" (of an occupation)

* what is the relation of general (academic) and vocational in socialisation processes

To make the idea of qualification type matrix more concrete, Deissinger gives an example of its use for Germany. Thus Germany can be characterised as follows:

Dimension A: co-operation of state and industry in "giving competing regulations"
Dimension B: aims and contents of training are oriented towards complex qualification profiles (occupational principle - Berufsprinzip)
Dimension C: pedagogical relevance of socialisation in VET - it mediates between general schooling and employment, establishing a learning environment separate both from school and employment.

There are, however, some basic problems also in trying to apply Deissinger´s ideal-typical approach to develop "comparative research on VET". First, in his model vocational education is perceived too much as an isolated and static system ("apparatus"?) - it may be more legitimate in the German context but not in most other countries. But does this categorisation enable us to grasp the cultural dynamics of vocational education: tensions between and aims of different social groups and actors, for example in their gender specificity? The model seems also to marginalize social values and expectations concerning occupations and education, underpinning more explicit pedagogical values and aims of vocational education. Second problem is that the model doesn´t relate vocational education to other forms of education - it gives no basis for comparisons to them, nationally or internationally. Thirdly, despite the

perspective of comparison, the model actually seems to lack international dimensions and dynamics. Each characteristic qualification style is functioning in a closed, national context. Fourthly, the model´s basic assumption of vocational education seems to reduce it to "qualification for a job". However, such narrow approach may severely limit the options of understanding the similarities and differences in structures, organisation and practices of vocational education as a specific form of education.

4. Some reflections on "cultural research" from studying the Finnish case

Using the experience from studying the Finnish of apprenticeship does not mean that it would be in itself providing an exhaustive example or criteria for comparative research. No country can be a "case" in the meaning of being a specific combination of essential criteria or testing any general theoretical models. Finland can be a case, however, for recognising the complex relations between the national and the international, understanding the dialectics of the general, specific and the individual. The reflection procedure can also provide some clues on where and how to search for the essential and important in national developments, to which kind of international links, global contexts, their importance is related. Furthermore, raising national specificity from marginal countries may have political meaning: it is challenging analyses on vocational education, which support implementing supra-national standards and programmes in vocational education from central countries, which

ignore and undervalue the experiences and identity-formation processes of human beings in their specific local and global situations.

The "proper way" of doing historical educational research on variety of VET arrangements should respond or make possible to include the many constructive ideas on comparative approach proposed earlier.[6] These have, for example, focused on VET in relation to different layers or sub-systems in nation states or societies. Accordingly, the new approach should enable to differentiate VET in relation to

1) state forms (cf. nation building projects)
2) labour market forms (cf. industrial relations, "projects in the total social organisation of labour")
3) pedagogical forms (cf. qualification styles, pedagogical projects).

At the moment my conviction is that, in proceeding into this direction, the ideas for "new methodological approach" in VET research, raised in the previous section, require more explicit thematisation of vocational education as a **distinctive** educational phenomenon and, consequently, as a **cultural phenomenon**. If vocational education is conceived as a cultural life-form and personal life-project, it is essentially historical, contestable, open for change, for emergencies and disappearances of its different variants. Concerning research-practice- relations, this also means that researchers are not outsiders, but interfering into the constitution of the phenomenon and definition of vocational education they study (indicator of the basic eclecticism of education as a science?).

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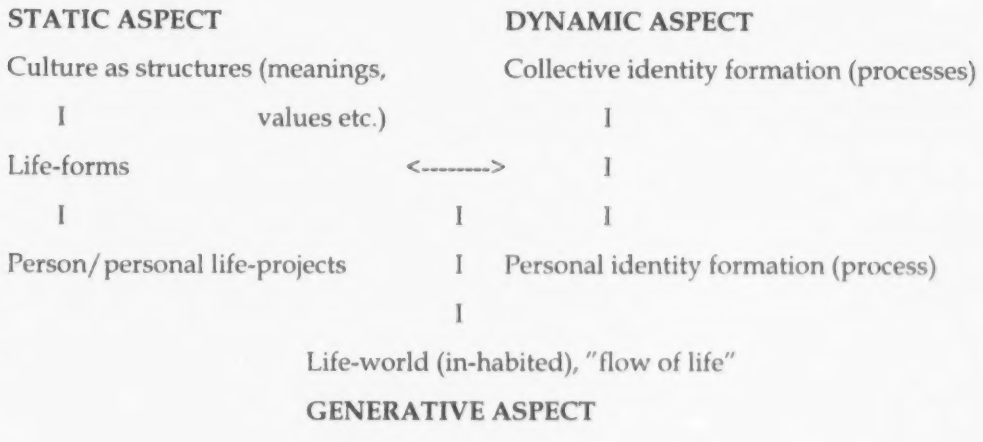
[6] I am grateful for the critical comments the research network partners made on the topic in Malta.

In order to give some grounds for the concluding methodological remarks, I try explicate the previous comment. Shortly, my conception of vocational education as a **cultural phenomenon** is motivated by reflections on Hegel, Marx, Husserl, Heidegger, Wittgenstein, their "Finnish counterparts" - like J.V. Snellman, E. Ahlman, G. von Wright - and their interpreters. In this conception, the world we are living in - inhabiting - as our own, as familiar and alien, is **culture**, while it is co-constituted by people, who are our relatives, comrades, neighbours, foreigners, friends and enemies. The cultural world we are living in, is our **life-world** (cf. everyday-life), while geographically or mentally constituting the communicative sphere for us who are co-constitutors of our world. Life-world is limited and finite, but not closed and determined. The habitual, value and meaning structures constituting culture and life-world, structuring collective and personal identity formation as becoming somebody and belonging to somewhere, may be called **life-forms** - temporally and geographically extending the boarders of our life-world. A characterisation of the interconnectedness of the aspects thematising vocational education as a cultural phenomenon is searched for in the following picture.[7]

[7] Diverging most - perhaps - from the authorities mentioned, these aspects are understood to cover the "totality" of human essence or existence, also its corporeality, not only mentality or spirituality.

Figure 1. Culture as static, dynamic and generative



Occupational life and vocational education can both be understood in their structural, dynamic and generative relations to other forms of life, identities, mixed in the flow of life.

The co-constitution of culture is a historical phenomenon, both at global and national level and at collective and personal level. This does not imply using "history" as a background (variable) for a study, but the essential **historicity** of the very phenomena we are investigating. Nor should the constellation be understood only "positively", as a constructive or harmonious system. On the contrary, the static, dynamic and generative aspects may just as well have negative connotations: being in lack of something, becoming broken or destructed etc.

Both vocational or occupational and educational life-forms can be defined as peculiar cultural formations, with their specific history and relation to other cultural formations. Vocation/occupation is an aspect of unique life-projects, a co-constitutor of personal identity in a fabric of

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cultural formations. Vocational education, on the other hand, can be conceived as a peculiar mediating, interfacial (liminal) life-form between the occupational and the educational. It may be understood as an (educational) intervention into personal identity formation processes, to the extent they are oriented towards some vocational/occupational life-form. It is evident that a "cultural research on vocational education" based on this kind of thinking, is impossible without continuous speculative and empirical reflection on its basic concepts like "vocation/occupation", "education", "identity" etc. Simultaneously, because of its co-constitutive nature, it is inevitably strongly political, leaving the process uncertain and researchers vulnerable.

What then, continuing from these preliminary ideas, could be the lessons from studying the Finnish case, for research on "apprenticeship"? At least, on one hand, "apprenticeship" needs to be reflected, in the broader context of national vocational education policy, of VET paradigms with their political, economical, social and cultural characteristics. On the other hand, national processes and phenomena should not be dealt separately from external factors, but reflected on as related and dependent on each other. National economies are characterised through the global division of labour, industry, production and consumption. Criticism against universalising theories and models should not legitimate narrowing research focus on national developments and "local narratives". On the contrary, a genuine globalisation of national considerations is needed: instead of universal models for "modernisation", "industrialisation", "labour-capital-relations", factual interdependencies of national developments should be searched.

The following table is an attempt for starting to relate national (Finnish, local, personal and collective) contextual analysis to international contextual analysis.

Table 2. The international context for formation of (Finnish) VET

	ECONOMY/INDUSTRY	POLITICS/NATION FORMATION
External,	* labour (skills, price)	* autonomy, independence
European,	* raw material, energy	* degree of self-sufficiency
Global	* transport	* citizenship
	* demand of products	
Internal	* ownership	* control
	* degree of self-supportivity	* care
		* integration/consensus

In the table, vocational education, as part of "the educational order" is considered in relation to "the industrial" and "the political" orders in some cultural context, heuristically understood as crucial issues to start with. In order to understand, what "apprenticeship" has meant in Finland and why it seems to resemble but also differ from other Nordic countries, for example, "apprenticeship" must be contextualised both internally and externally. The Finnish production-consumption system, usage of technology and labour have been strongly related to the changing global structures of production and consumption (e.g. the demand of tar, fur, timber, pulp, paper, textiles, shoes, mobile phones etc.), of division of technology and labour.[8] On the other hand, internally, both

[8] An example of often unrecognised connectedness of the internal and the international could be when, although "we" hardly see it in that way, Finland was once supporting the expansion of British imperialism by supplying cheap timber, wood-products etc. used for shipping and trade - another time it exploited the well-paying trade of mass-products in

politically and economically, national independence and surveillance resulted from various, competing, compromising movements. These required and enabled most people to have "sufficient" degree of self-supportivity and ownership e.g. of land, forest, occupation and commitment to collective care and control. Simultaneously, both external and internal developments have been embedded in their wider geographical and political environments, which label people´s mentalities, social relations, values and beliefs.

The explanatory linkages between complex cultural settings or constellations and specific manifestations (like "apprenticeship") of some vocational education "system" may necessarily remain incomplete and simplistic. Still, what is essential is the awareness of researchers of the implicit or underlying cultural configurations. Such awareness implies that similarities and differences are no more understood only at the surface of recently existing forms of vocational education. It may be that different modes have similar intra-cultural meanings. For example, Finnish schoolish vocational education with teachers´ parental roles seems to share the economical, social and educational meanings of the German dual system with its "Ausbilder" - a prototype of "apprenticeship" type of learning in Europe. On the other hand, similar forms may have different meanings. Finnish apprenticeships, for example, as an alternative for vocational adult education, has differed greatly from English or Swiss apprenticeships as "post-16" provision of vocational education. Furthermore, similarities and differences may have a complex "substructure": e.g. the male technical apprenticeships being most popular in

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construction, textile, clothing and shoe industry with Soviet Union to build its welfare-system.

Switzerland, compared to popularity of service sector apprenticeships for Finnish females.

In proceeding to cultural - dialogical and collaboratively comparative - research on "apprenticeship", it may be necessary to proceed through certain methodical steps. Firstly, in characterising change, continuity and epochs, **time** must be a shared criteria for comparisons - not only for identifying "backwardness" or "progressivity" of countries, but for understanding the historicity of contemporary relationalities. Secondly, **internal comparisons** among the sources, the material used, are necessary. The (intra-cultural) diversity of phenomena should be traced. Are there, for example in apprenticeship, similarities and differences between branches, stages, categories of institutions of (vocational) education, between gender and epochs of time? How are they related to changing conceptions of vocational education and social, industrial and occupational divisions? Thirdly: apprenticeship as a form of vocational education should be compared to **other forms of education** in the cultural (nation state?) context. This, if not else, should bring into the fore the role of researchers as co-definers, -constitutors and challengers of their topic - vocational education as education in its different forms. They should be aware of the many other co-constitutors, with their varying degrees of influence: governmental and political actors, actors in work-life, technology, different groups of people in society.[9] Researchers should thus reflect the historical and political "projects" they themselves carry further in the co-definition processes.

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[9] Do we even in this book continue to analyse changes of vocational education as reaction, instrument to economy and politics, because we do not have conception of it as an educational project of various actors - policy makers, administrators, teachers, trainers, students etc.?

Fourthly: the dimensions of vocational education as a cultural phenomenon are not exhausted at the level of a nation state, for example. They are co-constituted in a complex relation to "international" levels of culture and life-forms. Therefore, **international contextualisations** and comparisons are necessary: starting from surveys on similarities and differences, proceeding to exploration of circulation, impacts and influences of ideas and models, leading to reflections on complexities and underlying interdependencies of economies, production and division of labour.

There may not be theoretical or methodical grounds for researchers to pretend that they are above their various cultural commitments or belongings, allowing universalist statements on educational phenomena. In distancing from "standard comparative research", cultural research on vocational education should take its "cultural limits" - also as "academic" or "research cultures" - and relationality of cultural phenomena to the centre of its theoretical and methodical reflections.

5. Conclusions

Methodological speculations are also highly political and ethical. Thus, commitment to seemingly neutral, one-dimensional and supra-cultural comparisons produces universal definitions and evaluations, which are exploitable by (national and global) hegemonic economic and political projects. The trends of international capitalism towards global markets and production infrastructure, global exploitance of technology and labour force, demand increasing detachment of occupational training from

nations and cultures. The ownership of personal occupation and occupational identities have become obstacles. Slogans of occupational flexibility, mobility, inevitable increase of temporary jobs, division into core and periphery jobs, job-insecurity, recurrent (un)employment, self-employment etc. legitimate everywhere reforms of vocational training. What is needed are people with changing skills and anonymous "identity", quickly and flexibly transformed job-specifically.

If there are any shared "ideals" of vocational education to be deduced from the history of European apprenticeships, at least it seems that their prestige has varied according to the extent the occupational "mastership" has been defined and controlled, entry requirements and career progress moderated by the "profession" or "occupation" itself. If recruitment to occupation and career progress has depended on external certificates, on person´s general characteristics, like loyalty and authority, apprenticeship seem not to have high prestige. Simplifying, one might also claim that in most European countries, factory and service workers, small entrepreneurs and farmers have struggled for acquiring occupational independence - ownership of occupation and identity - which was a basis for their political and social participation and equality. People have fought away from such forms of training, which are either adjusting them to machines and technology, or are used only as means for diminishing problems caused from poverty and unemployment.

When appealing to historical images of apprenticeship and work-based learning, policy-makers and leaders of industry behave in an Orwellian manner. National governments do not want to spend any more on long and thorough vocational education to individuals, because the global

capitalist order no more consist of (European, national, local) obligations to permanent employment. Still they have to convince people about the advantages of life-long vocational training and broad (and thin) skills, because of determination of everybody to change occupation (or job?) permanently, to face constantly the threat of unemployment and to maintain his/her employability. There are some signs of resistance in Europe - in Germany some unions and small enterprises compete for their rights to define occupations and careers through apprenticeships, in Finland some service sector occupations through schoolish education. Nevertheless, if the recruitment and career progress mechanisms start to be based on people´s general personal characteristics and "employability" - defined by employers or "work-life" - the work-based training reforms paradoxically seem to lead increasingly to stress people´s achievements in general education.

By adaptation to dominant political expectations, researchers of vocational education are in danger of ignoring the multitude of skills, wisdom, fears and dreams of different groups of common people and their cultural homes all over the world. A research activity, based on the outlines of this paper, rather "cultural and dialogical" than comparative, would necessarily be more demanding. It will be impossible without explication and recognition of preconceptions, of practical and political motives of participants, without readiness to mutual learning and listening, to questioning and conceptual revisions. The characterisation of our research as "cultural research" is challenging the possibility or relevance of standard comparative research on vocational education.[10] There

[10] Cf. Interestingly similar remarks on developing "cultural" instead of "comparative" research on VET, are made by R. Sakslind 1996. This comment may

may indeed exist levels of global, western or European cultures in people´s life-worldly experiences, including vocational education. In order to identify them, it is necessary proceed by specifying the dimensions or levels of culture concretely (persons, collectives, nations, clusters of nations etc.) in a research programme.

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Apprenticeship has come into fashion in European vocational education policy. The old concept with its varying connotations and prestige, has experienced a remarkable rehabilitation, symbolising emerging new conceptions and interpretations on the functions of vocational education and training and on the relations between education and work in European countries.

This publication is an outcome of a conference, held in Malta September 1996, of a network of researchers from Finland, Germany, England, Norway, Switzerland and Malta, brought together through their interest in historical and cultural specifies of European vocational education. The discussion of the possibilities for co-operative research on apprenticeship as a type of vocational education, begins with an overview of educational discussion on vocationalism and with historical and cultural reflections on apprenticeships in some European countries. The following articles are concerned more generally with crucial political and practical challenges involved in apprenticeship as a form of vocational education. Finally, the problems of co-operation and comparisons in doing research on apprenticeships at European level are discussed: how to proceed in the future?

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